

Solar-Geophysical Data prompt reports



Data for May and June 2001

Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
COLORADO



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Data for May and June 2001

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NATIONAL GEOPHYSICAL DATA CENTER

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Boulder, Colorado

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SOLAR-GEOPHYSICAL DATA

Number 683

(Issued in Two Parts)

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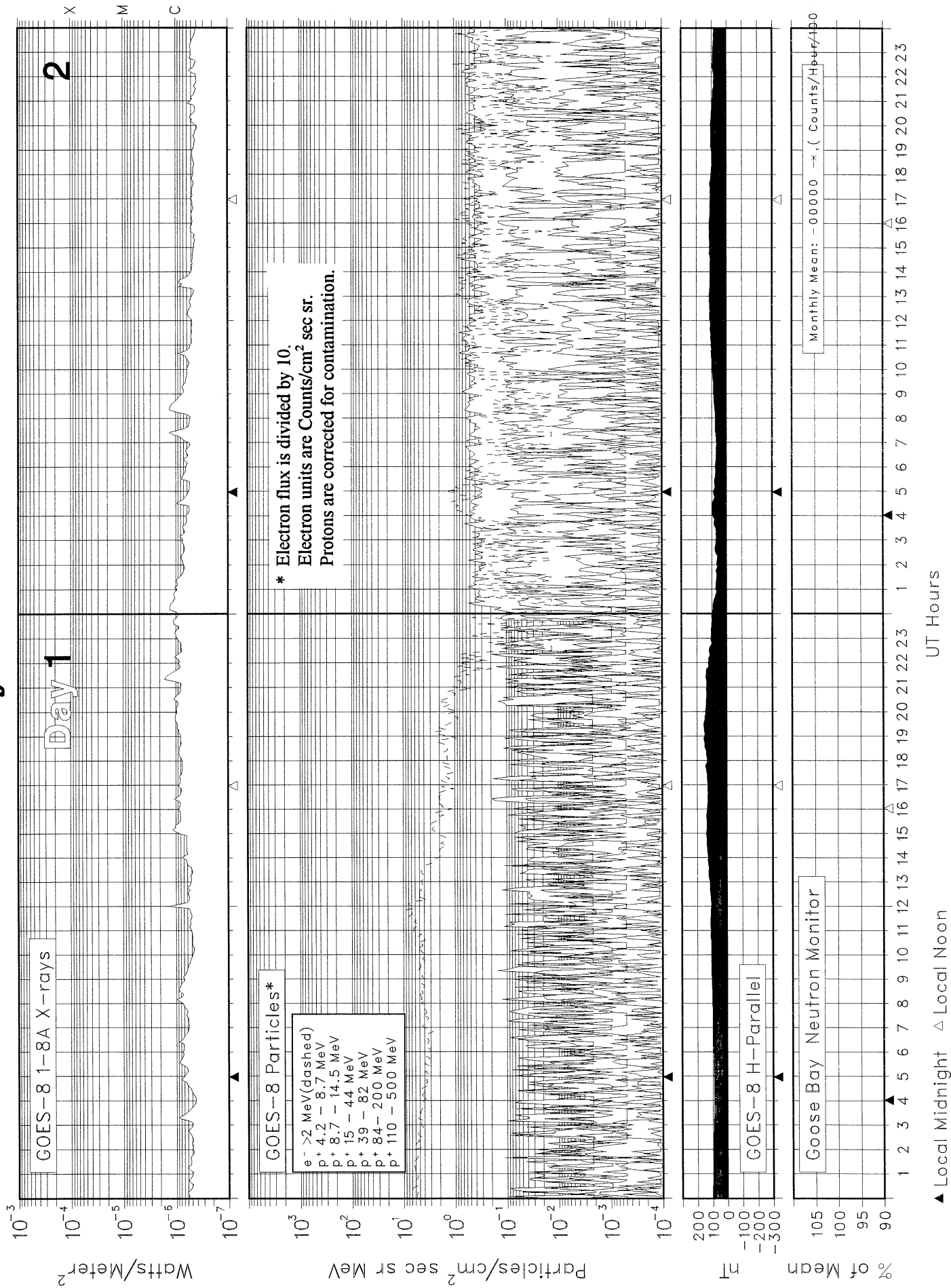
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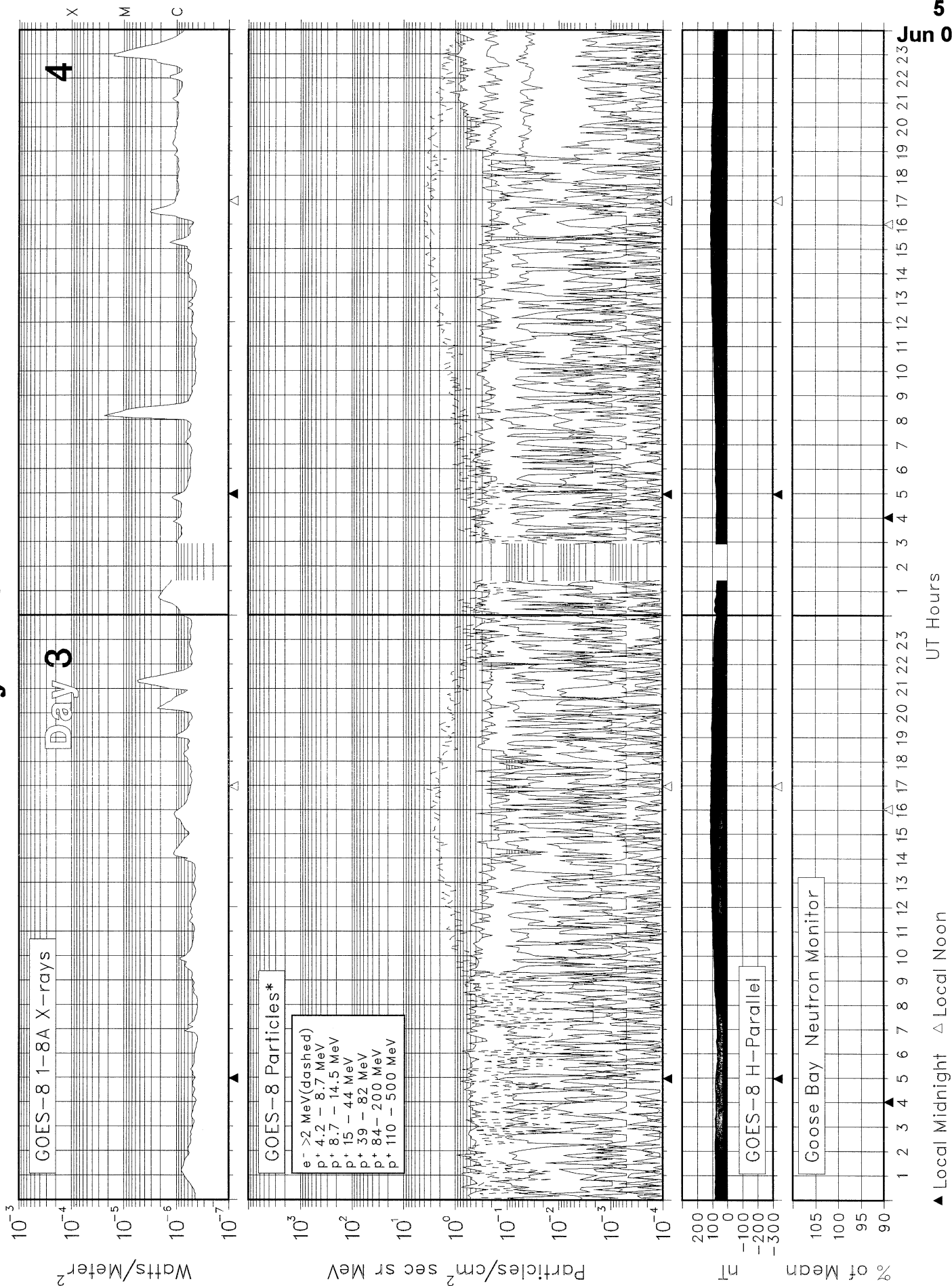
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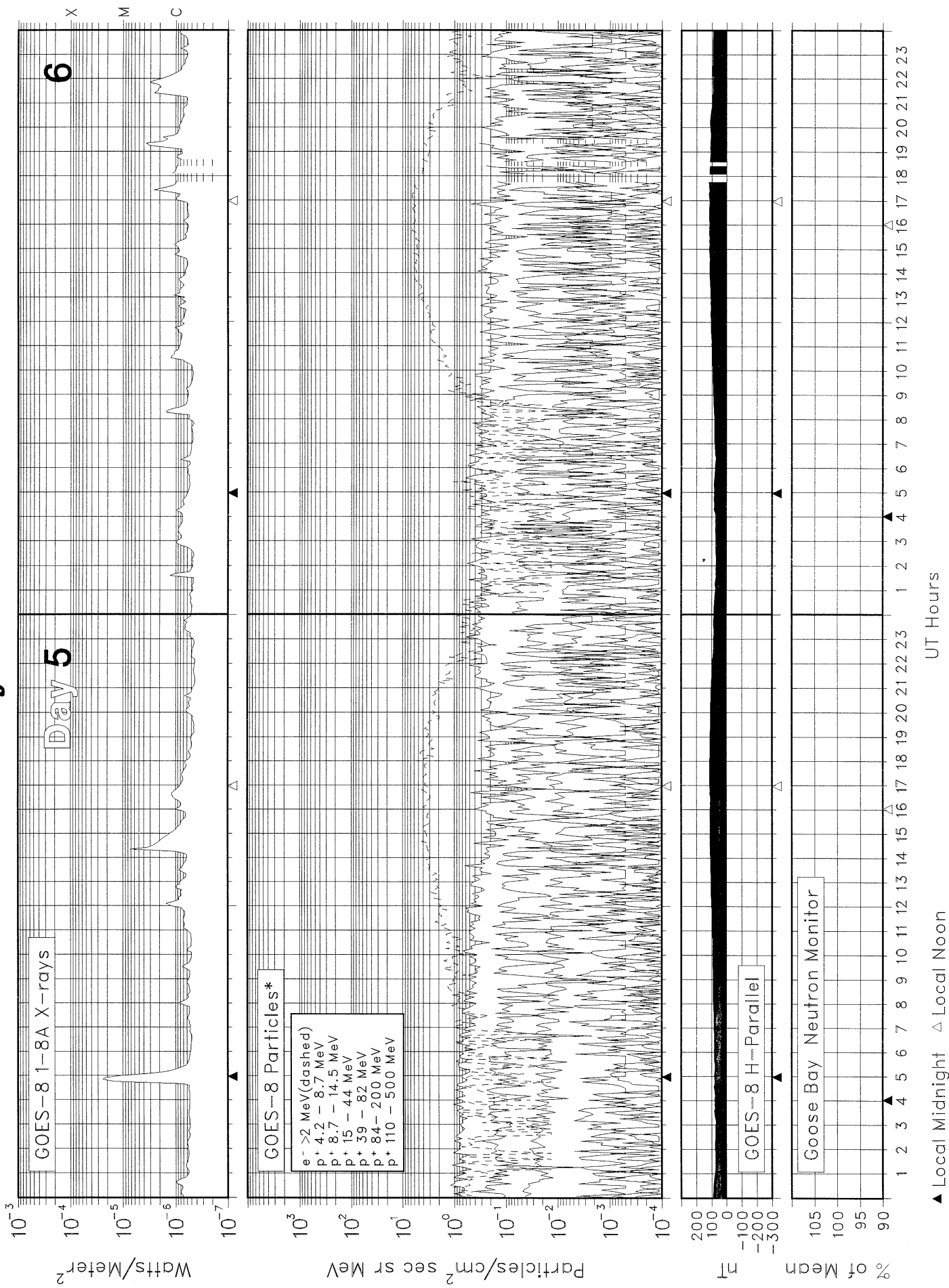
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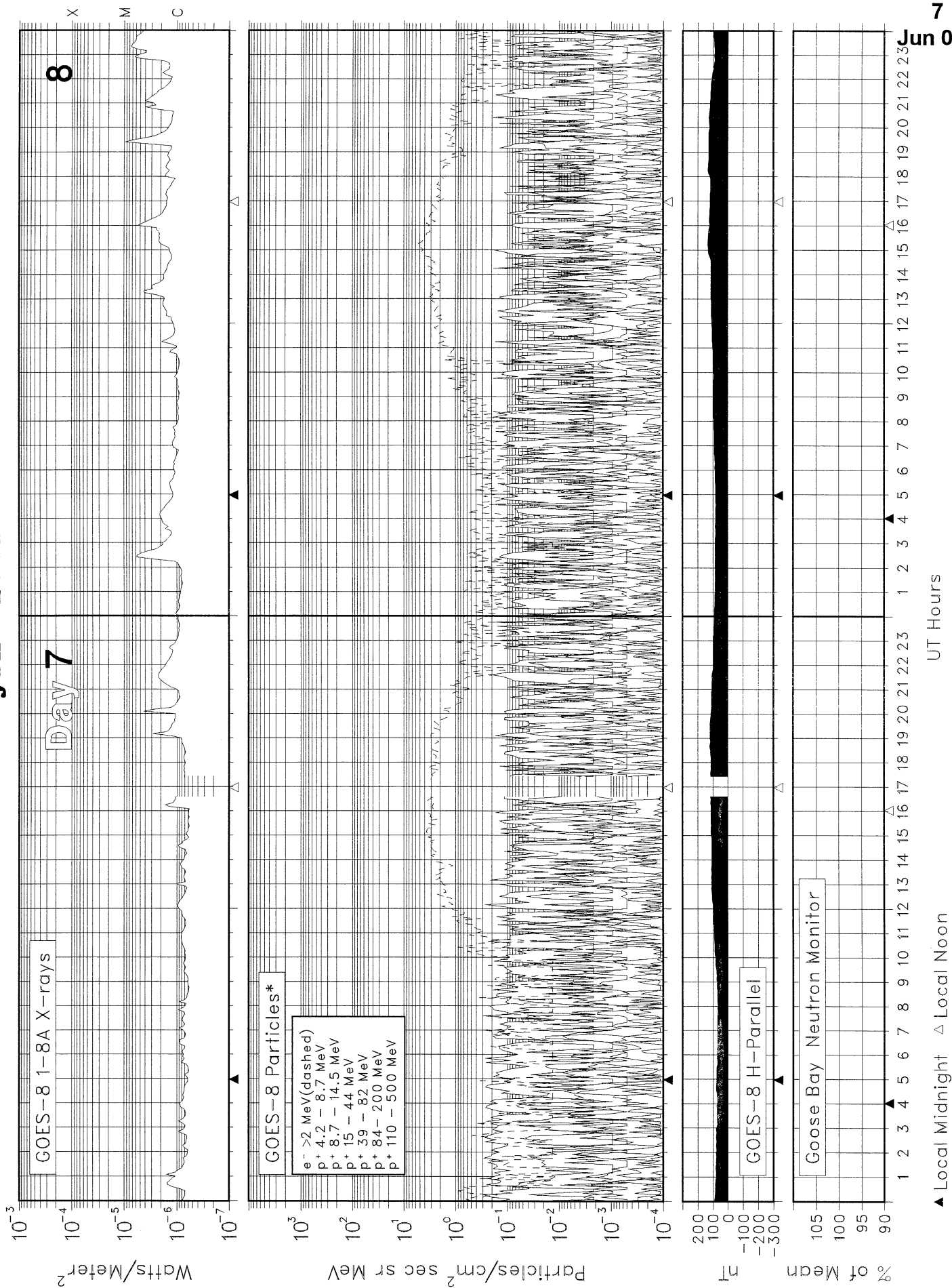
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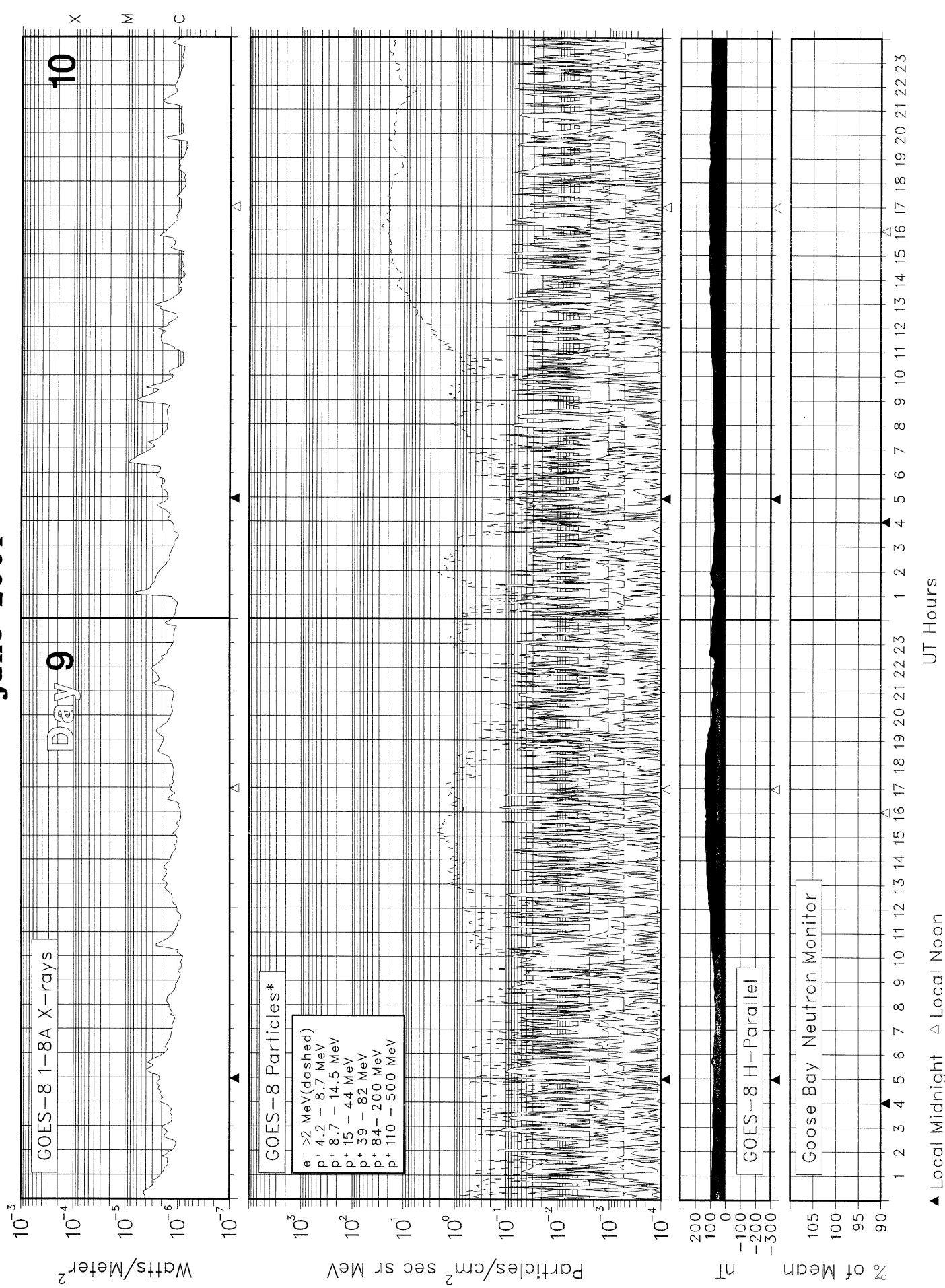
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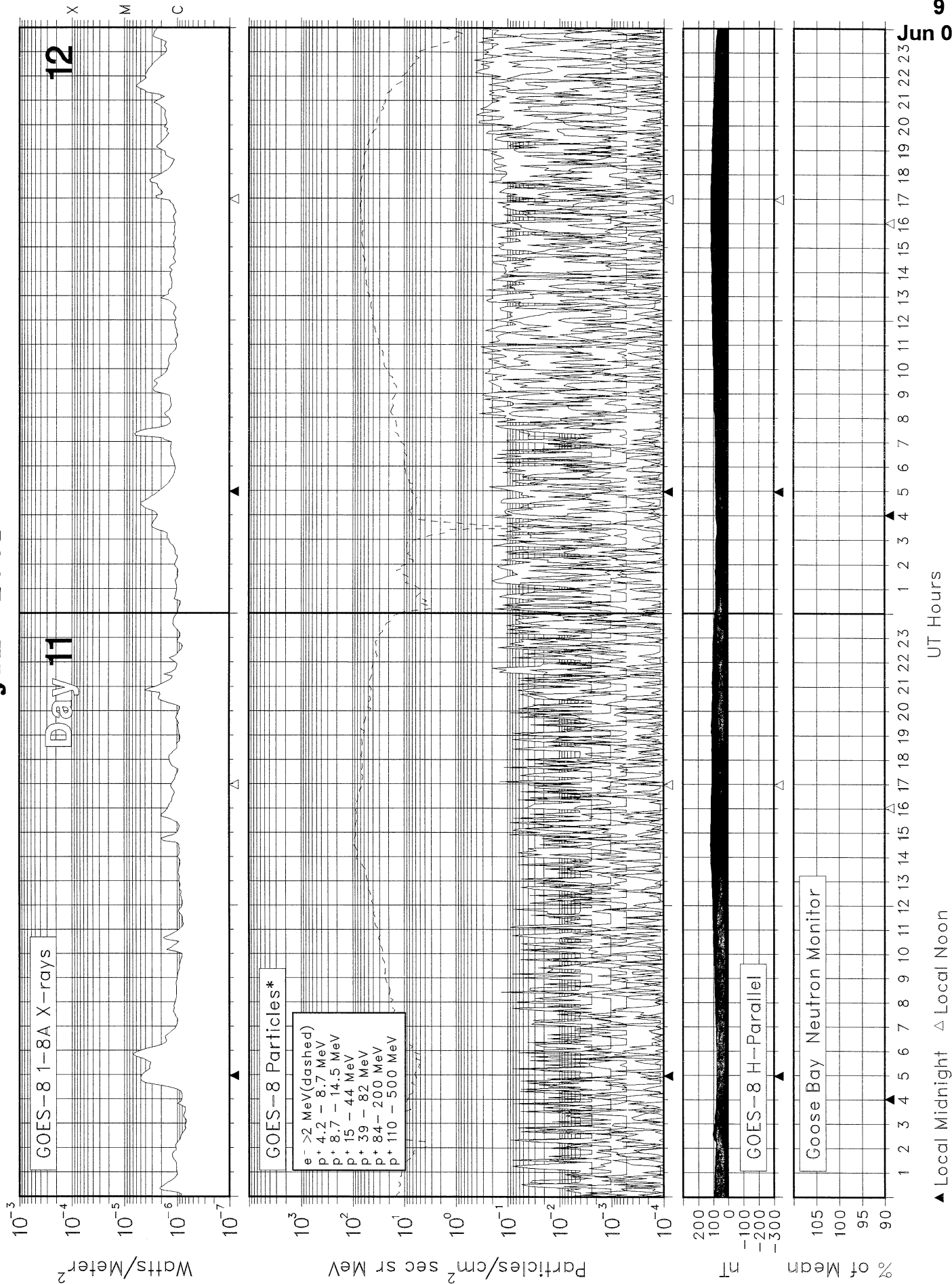
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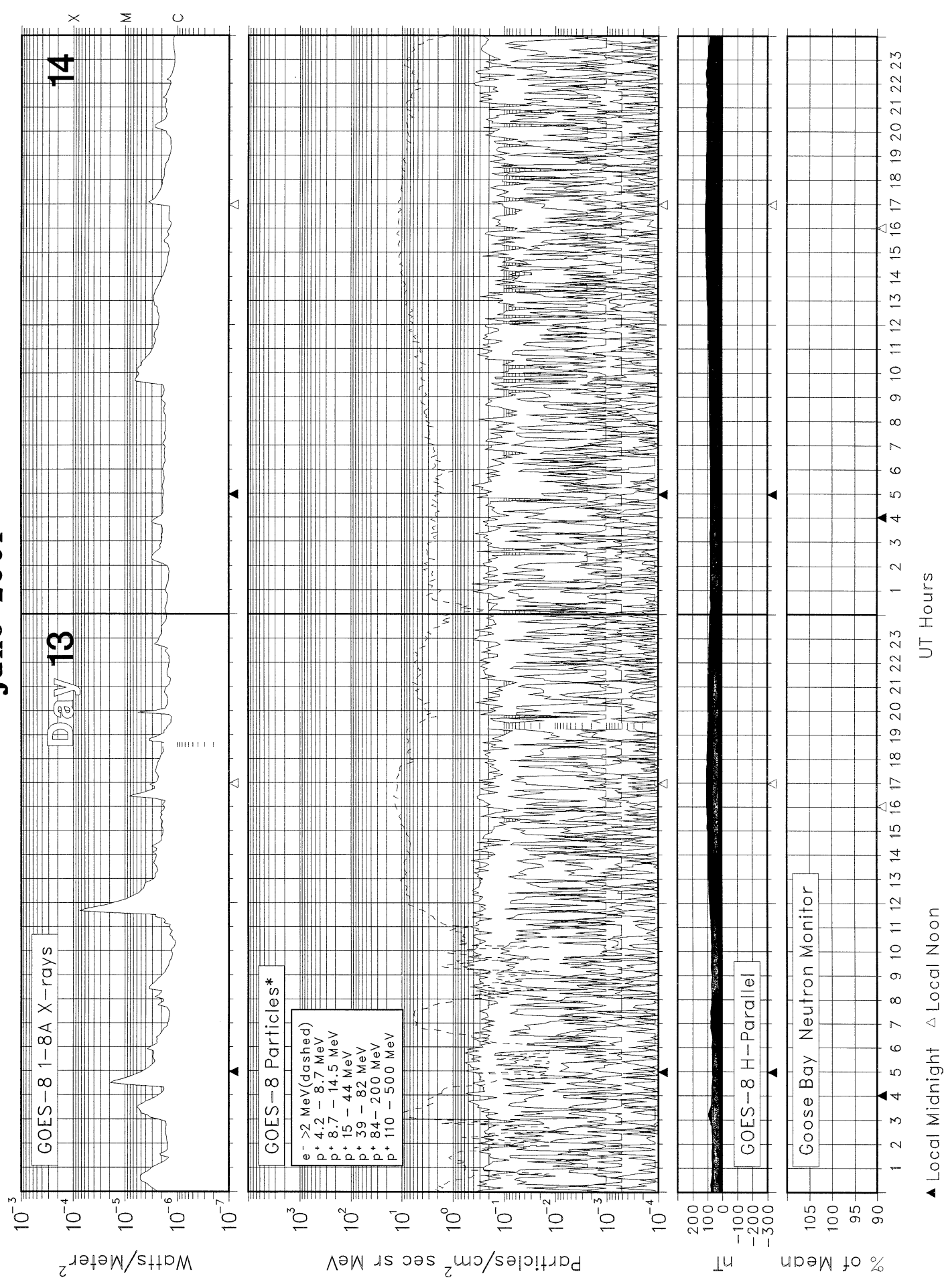
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▲ Local Midnight △ Local Noon

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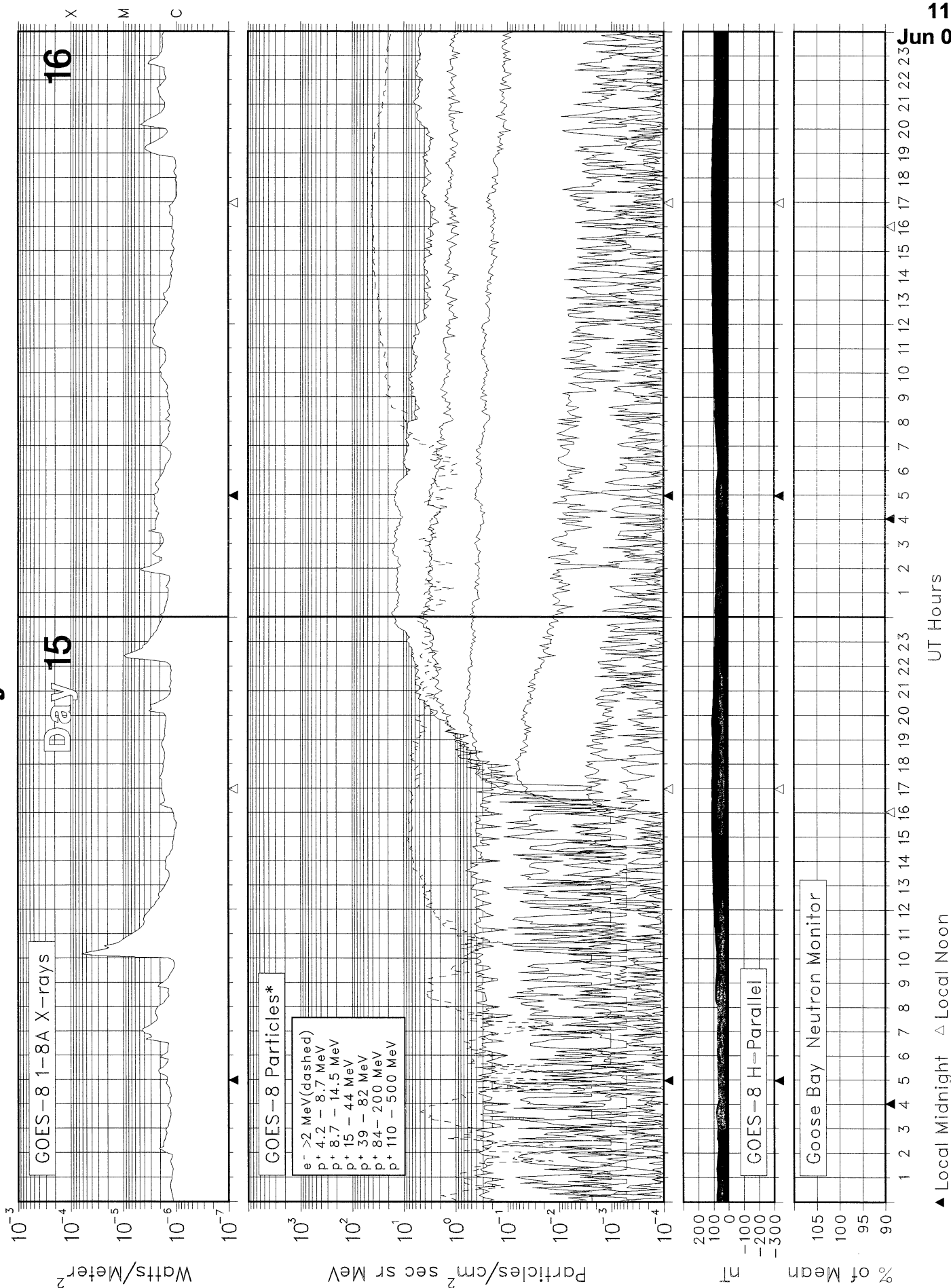
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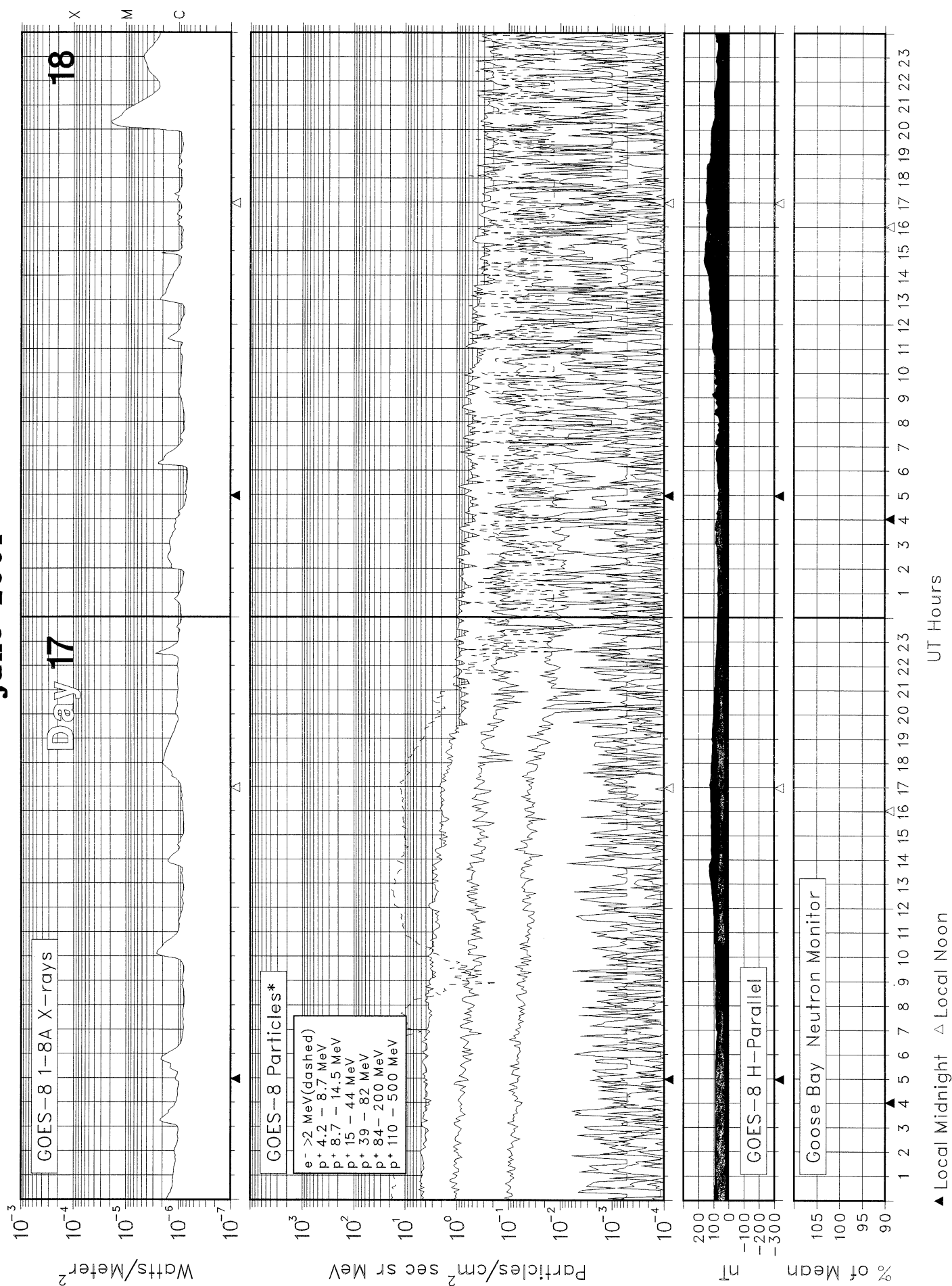
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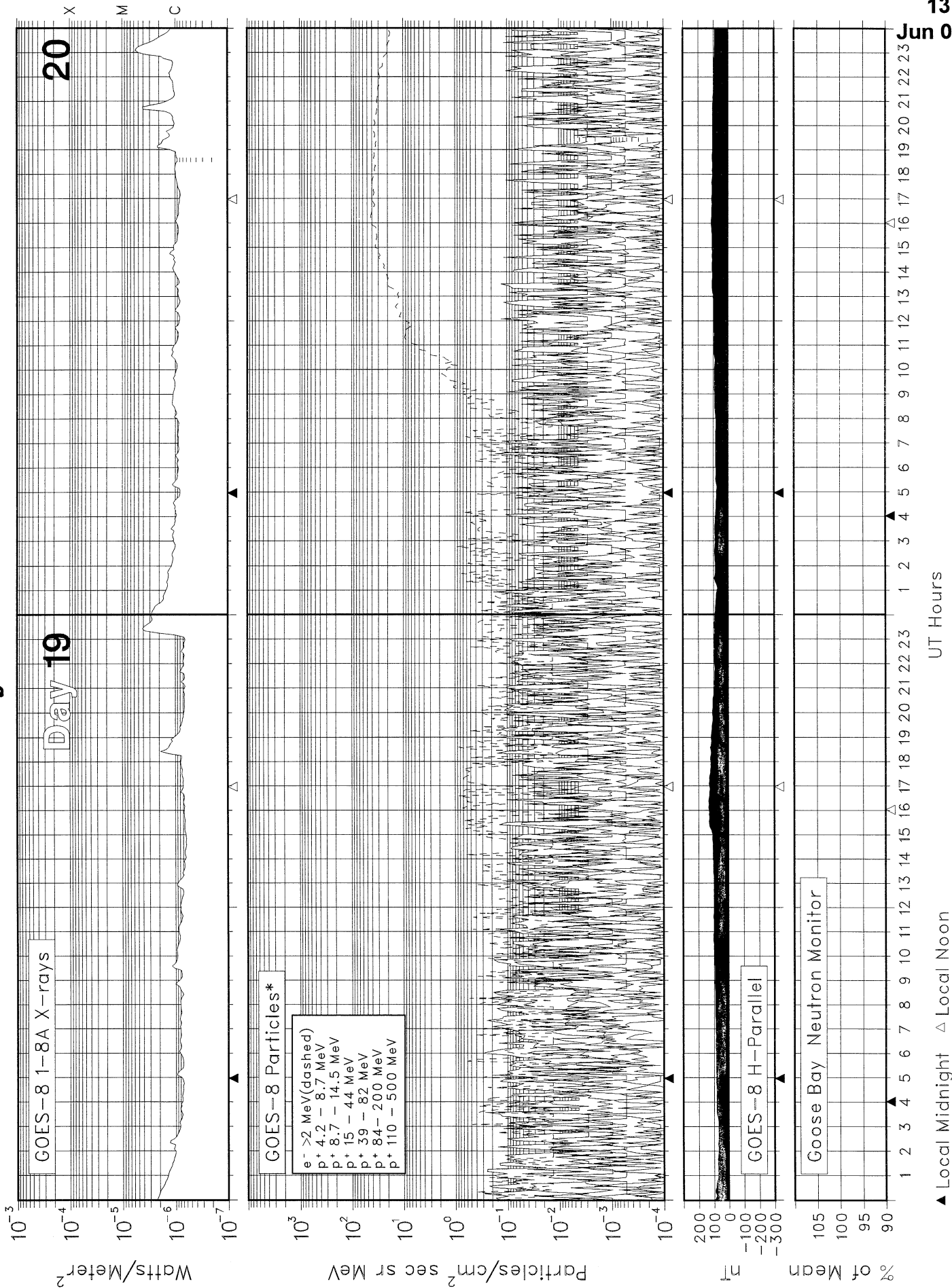
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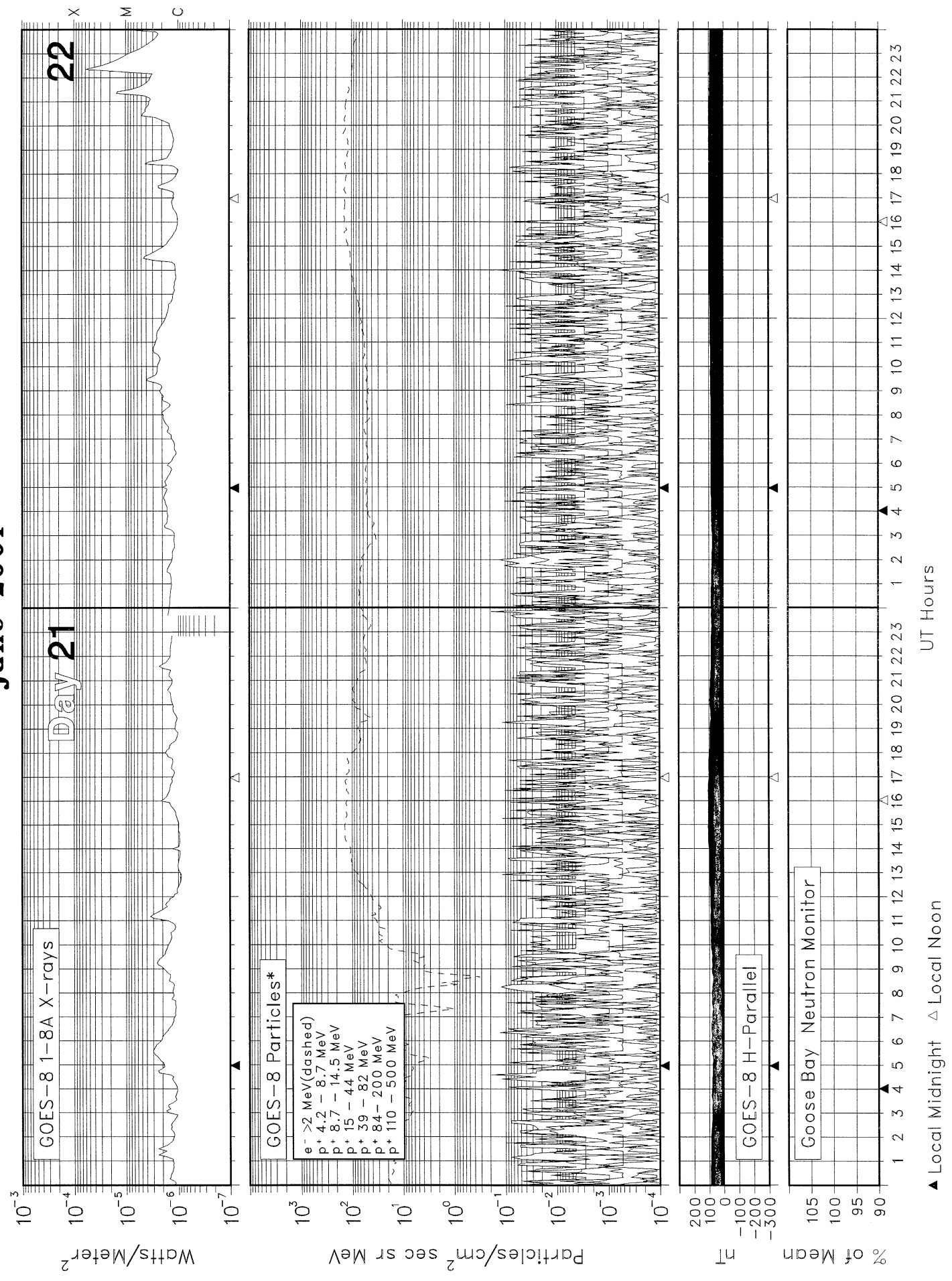
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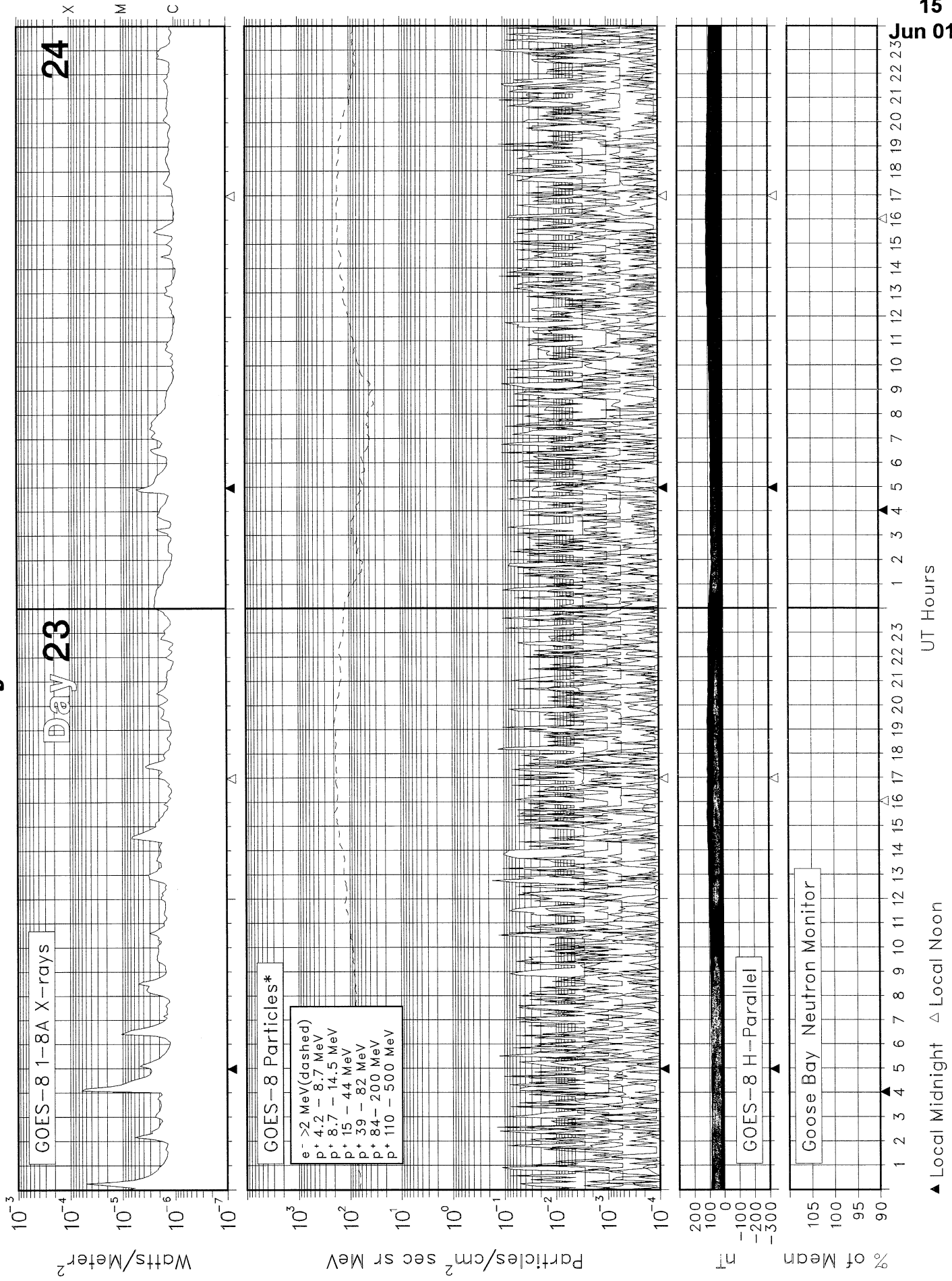
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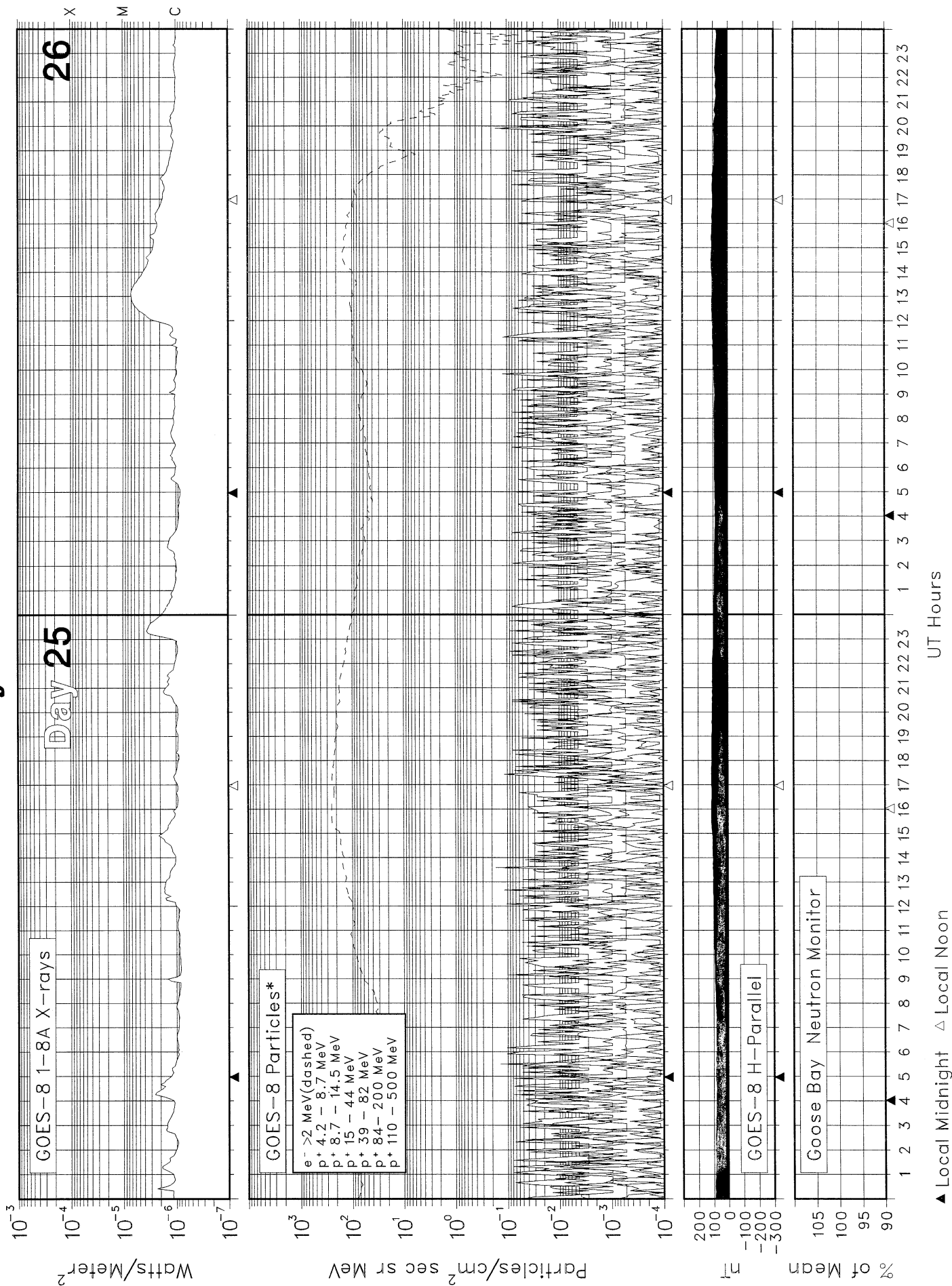
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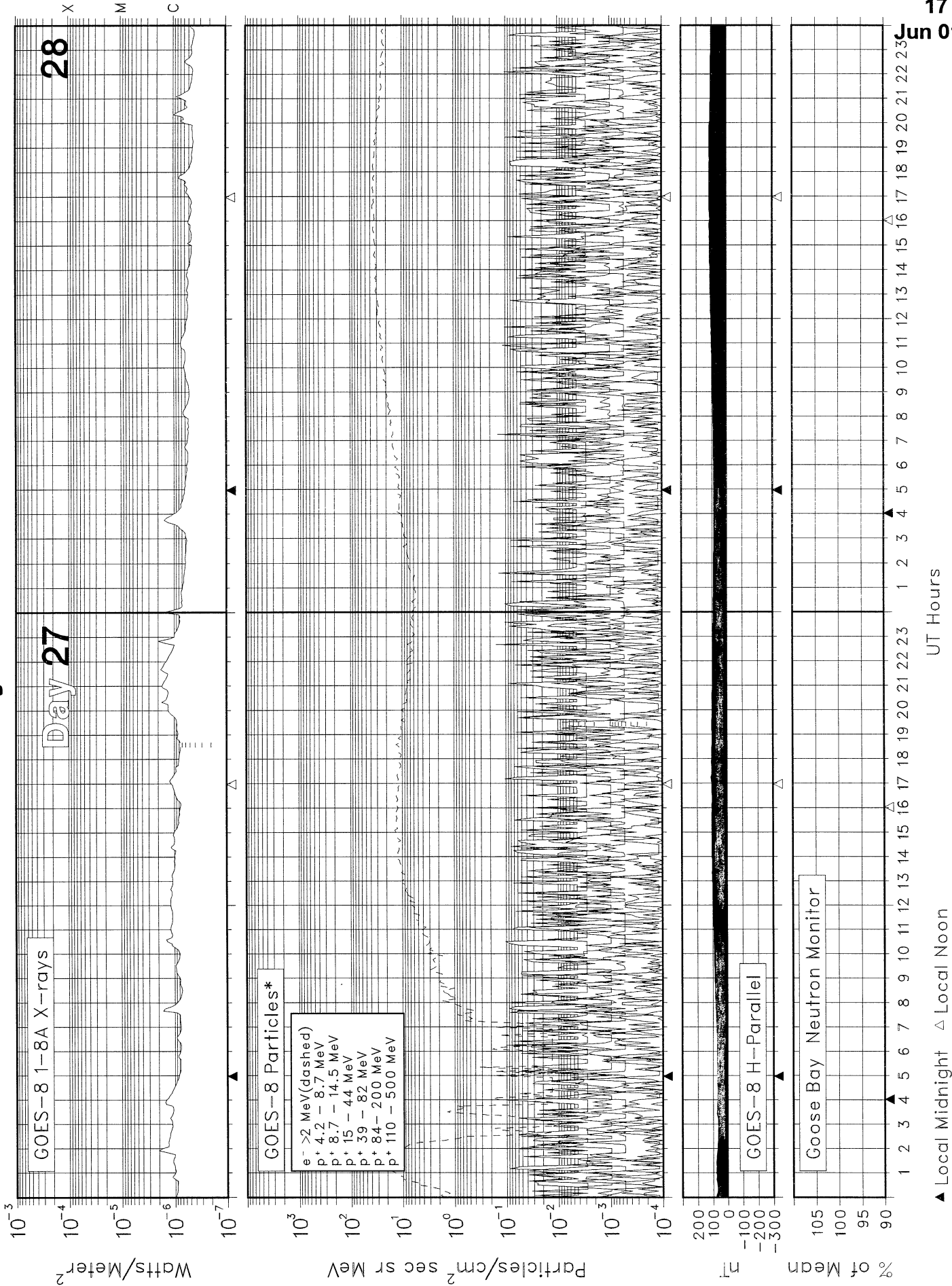
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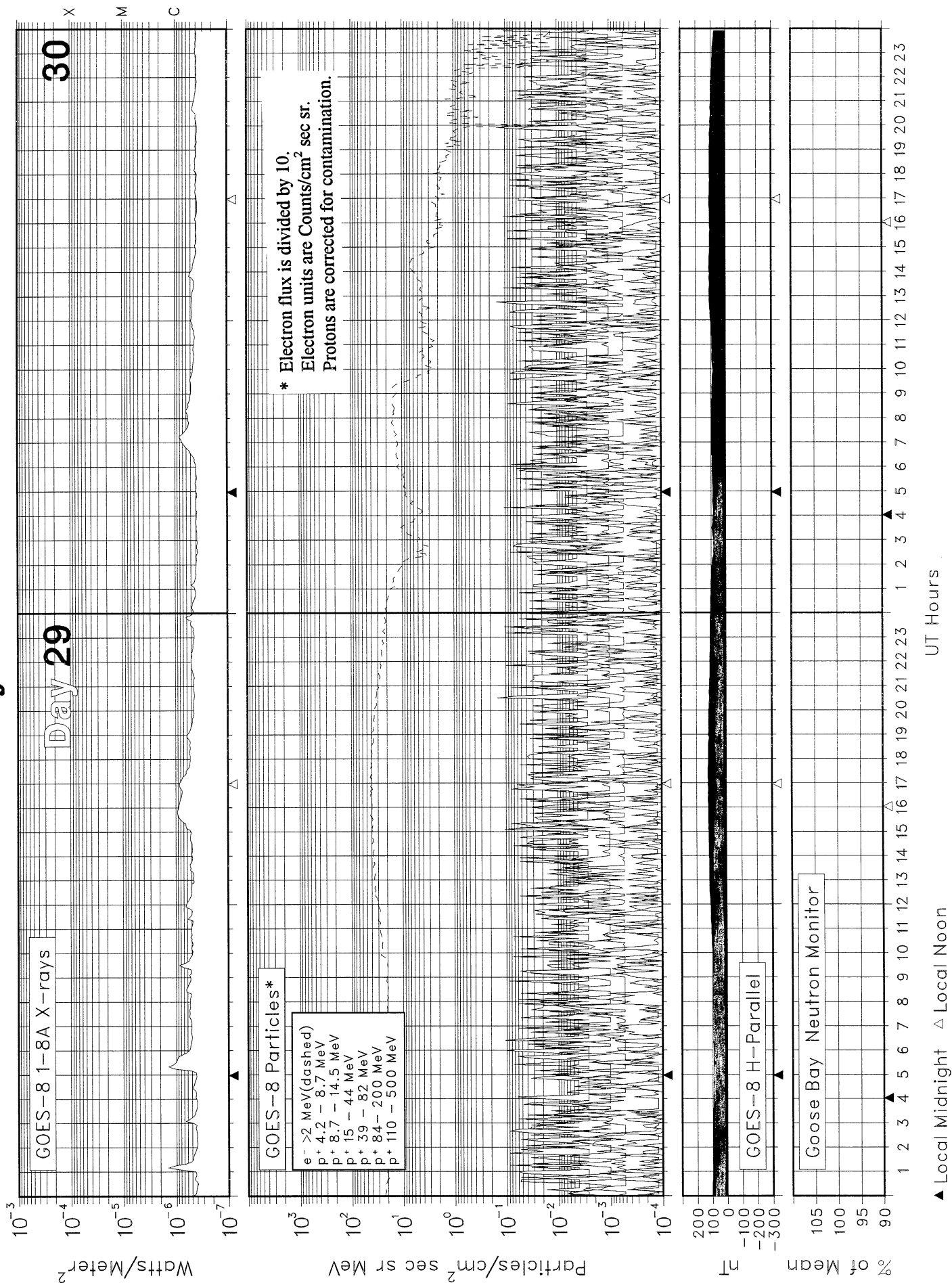
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June 2001



SOLAR-TERRESTRIAL ENVIRONMENT

June 2001



A L E R T P E R I O D S
The International Space Environment Service

JUNE 2001

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
152	01	31	93	133	5	9467	S06	W81	0	0	0	01	Q	SOL: Eruptive
						9468	N06	W76	0	0	0	01	Q	MAG: Quiet
						9472	N14	W44	0	0	0	01	Q	PRO: Quiet
						9474	N20	W14	0	0	0	01	Q	
						9475	N18	E06	0	0	0	01	Q	
						9481	N18	W84	1	0	0	01	Q	
						9482	S16	E32	0	0	0	01	Q	
153	02	01	120	133	9	9468	N07	W87	0	0	0	02	Q	SOL: Eruptive
						9474	N20	W27	0	0	0	02	Q	MAG: Quiet
						9475	N19	W08	1	0	0	02	Q	PRO: Quiet
						9477	S16	W43	0	0	0	02	Q	
						9481	N18	W98	1	0	0	02	Q	
						9482	S13	E16	0	0	0	02	Q	
						9483	S22	W59	3	0	0	02	Q	
						9484	S08	E36	0	0	0	02	Q	
154	03	02	141	134	20	9474	N21	W38	0	0	0	03	Q	SOL: Eruptive
						9475	N20	W19	0	0	0	03	Q	MAG: Quiet
						9477	S17	W55	0	0	0	03	Q	PRO: Quiet
						9482	S12	E05	0	0	0	03	Q	
						9483	S22	W73	0	0	0	03	Q	
						9484	S06	E22	5	0	0	03	E	
						9485	S21	E64	0	0	0	03	Q	
						9486	N28	W08	0	0	0	03	Q	
155	04	03	143	145	10	9474	N22	W51	0	0	0	04	Q	SOL: Eruptive
						9475	N19	W29	0	0	0	04	Q	MAG: Quiet
						9482	S16	W04	0	0	0	04	Q	PRO: Quiet
						9483	S22	W84	0	0	0	04	Q	
						9484	S06	E08	3	0	0	04	E	
						9485	S23	E46	0	0	0	04	Q	
						9486	N28	W22	2	0	0	04	Q	
						9487	N19	E60	0	0	0	04	Q	
156	05	04	125	154	8	9475	N20	W42	0	0	0	05	E	SOL: Eruptive
						9482	S16	W17	0	0	0	05	Q	MAG: Quiet
						9484	S06	W06	2	1	0	05	E	PRO: Quiet
						9485	S23	E35	0	0	0	05	Q	
						9486	N28	W34	3	1	0	05	Q	
						9487	N19	E48	0	0	0	05	Q	
						9488	S18	E48	3	1	0	05	E	
157	06	05	160	153	10	9475	N21	W56	0	0	0	06	Q	SOL: Eruptive
						9484	S05	W20	1	0	0	06	E	MAG: Quiet
						9485	S23	E20	0	0	0	06	Q	PRO: Quiet
						9486	N28	W48	0	0	0	06	Q	
						9487	N19	E35	0	0	0	06	Q	
						9488	S20	E33	2	1	0	06	Q	
						9489	N17	E52	0	0	0	06	Q	
						9490	S13	E49	0	0	0	06	Q	
						9491	N22	E75	0	0	0	06	Q	
158	07	06	170	158	9	9475	N20	W71	3	0	0	07	Q	SOL: Eruptive
						9484	S05	W33	2	0	0	07	E	MAG: Quiet
						9486	N28	W61	1	0	0	07	Q	PRO: Quiet
						9487	N21	E22	0	0	0	07	Q	
						9488	S20	E19	7	0	0	07	E	
						9489	N18	E39	0	0	0	07	Q	
						9490	S12	E35	0	0	0	07	Q	
						9491	N23	E63	0	0	0	07	Q	
						9492	N18	E62	0	0	0	07	Q	
159	07	06	170	158	9	9493	N05	E73	0	0	0	07	Q	

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A L E R T P E R I O D S The International Space Environment Service

JUNE 2001

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
159	08	07	163	165	12	9475	N18	W85	0	0	0	08	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9484	S06	W47	2	0	0	08	E	
						9486	N28	W74	0	0	0	08	Q	
						9487	N22	E09	0	0	0	08	Q	
						9488	S18	E04	1	0	0	08	E	
						9489	N18	E24	0	0	0	08	Q	
						9491	N24	E50	0	0	0	08	Q	
						9492	N19	E50	1	0	0	08	Q	
						9493	N06	E64	0	0	0	08	Q	
160	09	08	179	180	9	9484	S06	W61	0	0	0	09	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9486	N27	W87	0	0	0	09	Q	
						9487	N22	W03	0	0	0	09	Q	
						9488	S19	W09	1	0	0	09	E	
						9489	N17	E08	0	0	0	09	Q	
						9491	N24	E37	0	0	0	09	Q	
						9492	N19	E36	0	0	0	09	Q	
						9493	N05	E51	1	0	0	09	Q	
						9494	S08	W30	5	1	0	09	E	
161	10	09	250	177	17	9484	S07	W78	0	0	0	10	Q	SOL: Eruptive MAG: Active PRO: Quiet
						9487	N22	W18	1	0	0	10	Q	
						9488	S19	W20	1	0	0	10	E	
						9489	N18	W04	2	0	0	10	E	
						9490	S16	W04	0	0	0	10	Q	
						9491	N25	E23	0	0	0	10	Q	
						9492	N20	E23	0	0	0	10	Q	
						9493	N06	E37	4	0	0	10	Q	
						9494	S08	W44	15	0	0	10	E	
162	11	10	217	163	17	9495	N04	E11	0	0	0	10	Q	SOL: Eruptive MAG: Active PRO: Quiet
						9496	N09	W36	0	0	0	10	Q	
						9484	S06	W92	0	0	0	11	Q	
						9487	N21	W30	3	0	0	11	Q	
						9488	S18	W32	1	0	0	11	Q	
						9489	N18	W17	2	0	0	11	E	
						9491	N25	E10	0	0	0	11	Q	
						9492	N20	E11	0	0	0	11	Q	
						9493	N06	E25	1	0	0	11	Q	
163	12	11	249	162	9	9494	S08	W57	7	0	0	11	E	SOL: Eruptive MAG: Active PRO: Quiet
						9495	N04	W03	0	0	0	11	Q	
						9496	N09	W47	0	0	0	11	Q	
						9497	S10	E27	2	0	0	11	Q	
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						9491	N25	W03	0	0	0	12	Q	
164	13	12	193	166	6	9492	N20	W02	0	0	0	12	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9493	N06	E12	0	0	0	12	Q	
						9494	S08	W69	1	0	0	12	E	
						9495	N04	W16	0	0	0	12	Q	
						9496	N08	W62	0	0	0	12	Q	
						9497	S09	E14	0	0	0	12	Q	
						9498	N24	E46	0	0	0	12	Q	
						9499	N18	E17	0	0	0	12	Q	
						9500	N10	E71	0	0	0	12	Q	
164	13	12	193	166	6	9501	S14	E69	0	0	0	12	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9487	N22	W55	2	0	0	13	Q	
						9488	S18	W56	2	0	0	13	Q	
						9489	N20	W42	0	0	0	13	Q	
164	13	12	193	166	6	9491	N26	W14	0	0	0	13	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9492	N21	W15	1	0	0	13	Q	
						9493	N07	E00	0	0	0	13	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9494	S07	W81	2	0	0	13	E	
						9495	N05	W30	0	0	0	13	Q	
						9497	S09	E02	0	0	0	13	Q	
						9498	N23	E31	0	0	0	13	Q	
						9499	N18	E03	0	0	0	13	Q	
						9500	N10	E57	0	0	0	13	Q	
						9501	S15	E55	0	0	0	13	Q	
						9502	S25	E68	0	0	0	13	Q	
165	14	13	221	181	11	9487	N22	W68	1	0	0	14	Q	SOL: Active
						9488	S18	W70	0	0	0	14	Q	MAG: Quiet
						9489	N20	W55	7	0	0	14	E	PRO: Quiet
						9491	N27	W27	0	0	0	14	Q	
						9492	N21	W28	0	0	0	14	Q	
						9493	N07	W15	0	0	0	14	Q	
						9494	S07	W88	0	0	0	14	Q	
						9495	N05	W34	1	0	0	14	Q	
						9497	S10	W12	0	0	0	14	Q	
						9498	N23	E18	0	0	0	14	Q	
						9499	N19	W12	0	0	0	14	Q	
						9500	N09	E43	0	0	0	14	Q	
						9501	S15	E42	0	0	0	14	Q	
						9502	S26	E58	4	2	0	14	E	
						9503	N13	E68	0	0	0	14	Q	
						9504	N06	E76	0	0	0	14	Q	
166	15	14	273	195	6	9487	N23	W82	1	0	0	15	Q	SOL: Active
						9488	S17	W82	0	0	0	15	Q	MAG: Quiet
						9489	N20	W69	3	0	0	15	E	PRO: Quiet
						9491	N28	W40	0	0	0	15	Q	
						9492	N21	W41	1	0	0	15	Q	
						9493	N07	W28	0	0	0	15	Q	
						9495	N06	W46	1	0	0	15	E	
						9497	S09	W23	0	0	0	15	Q	
						9498	N24	E05	0	0	0	15	Q	
						9499	N20	W26	0	0	0	15	Q	
						9500	N10	E31	0	0	0	15	Q	
						9501	S13	E28	0	0	0	15	Q	
						9502	S26	E45	0	0	0	15	E	
						9503	N15	E59	0	0	0	15	Q	
						9504	N07	E63	0	0	0	15	Q	
						9505	N22	E73	0	0	0	15	Q	
						9506	N17	E79	0	0	0	15	Q	
167	16	15	264	197	11	9489	N20	W80	1	0	0	16	E	SOL: Active
						9491	N24	W53	0	0	0	16	Q	MAG: Quiet
						9492	N21	W52	2	0	0	16	Q	PRO: IP
						9493	N06	W41	0	0	0	16	Q	
						9495	N05	W59	0	0	0	16	Q	
						9497	S10	W35	1	0	0	16	Q	
						9498	N24	W08	0	0	0	16	Q	
						9499	N19	W41	0	0	0	16	Q	
						9500	N09	E18	0	0	0	16	Q	
						9501	S13	E15	1	0	0	16	Q	
						9502	S25	E32	5	1	0	16	E	
						9503	N15	E46	0	0	0	16	E	
						9504	N07	E51	0	0	0	16	Q	
						9505	N23	E59	0	0	0	16	Q	
						9506	N17	E67	1	0	0	16	Q	
						9507	N13	E26	0	0	0	16	Q	
168	17	16	276	208	6	9491	N28	W66	0	0	0	17	Q	SOL: Active
						9492	N23	W70	0	0	0	17	Q	MAG: Quiet
						9493	N07	W64	0	0	0	17	Q	PRO: Quiet
						9495	N06	W73	5	0	0	17	E	
						9497	S10	W49	0	0	0	17	Q	
						9498	N24	W22	0	0	0	17	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9499	N20	W58	0	0	0	17	Q	
						9500	N10	E04	0	0	0	17	Q	
						9501	S13	E02	0	0	0	17	Q	
						9502	S25	E19	1	0	0	17	E	
						9503	N13	E33	0	0	0	17	E	
						9504	N07	E37	0	0	0	17	Q	
						9505	N21	E46	1	0	0	17	Q	
						9506	N17	E61	1	0	0	17	E	
						9507	N12	E11	0	0	0	17	Q	
						9508	S20	W60	0	0	0	17	Q	
169	18	17	289	205	8	9491	N27	W79	0	0	0	18	Q	SOL: Active
						9492	N23	W84	0	0	0	18	Q	MAG: Quiet
						9493	N07	W77	0	0	0	18	Q	PRO: Quiet
						9495	N05	W86	0	0	0	18	Q	
						9497	S09	W67	0	0	0	18	Q	
						9498	N23	W37	0	0	0	18	Q	
						9499	N20	W71	0	0	0	18	Q	
						9500	N10	W09	0	0	0	18	Q	
						9501	S13	W11	0	0	0	18	Q	
						9502	S25	E05	0	0	0	18	E	
						9503	N14	E20	1	0	0	18	E	
						9504	N08	E24	1	0	0	18	Q	
						9505	N21	E32	0	0	0	18	Q	
						9506	N17	E48	0	0	0	18	E	
						9507	N12	W01	0	0	0	18	Q	
						9508	S20	W72	0	0	0	18	Q	
170	19	18	220	221	31	9491	N27	W91	0	0	0	19	Q	SOL: Active
						9493	N07	W89	0	0	0	19	Q	MAG: Active
						9498	N23	W50	0	0	0	19	Q	PRO: Quiet
						9499	N20	W83	0	0	0	19	Q	
						9500	N11	W22	1	0	0	19	Q	
						9501	S14	W24	0	0	0	19	Q	
						9502	S26	W08	0	0	0	19	Q	
						9503	N14	E07	7	0	0	19	E	
						9504	N08	E11	0	0	0	19	Q	
						9505	N21	E19	0	0	0	19	Q	
						9506	N17	E34	4	1	0	19	E	
171	20	19	222	195	13	9498	N22	W64	0	0	0	20	Q	SOL: Eruptive
						9500	N11	W37	0	0	0	20	Q	MAG: Active
						9501	S13	W38	0	0	0	20	Q	PRO: Quiet
						9502	S26	W21	0	0	0	20	Q	
						9503	N16	W06	0	0	0	20	Q	
						9504	N08	W02	1	0	0	20	Q	
						9505	N22	E05	0	0	0	20	Q	
						9506	N19	E21	0	0	0	20	E	
						9509	S11	W04	0	0	0	20	Q	
172	21	20	232	199	15	9498	N23	W78	0	0	0	21	Q	SOL: Eruptive
						9500	N12	W49	0	0	0	21	Q	MAG: Quiet
						9501	S13	W50	0	0	0	21	Q	PRO: Quiet
						9502	S27	W30	0	0	0	21	Q	
						9503	N16	W20	1	0	0	21	Q	
						9504	N09	W17	1	0	0	21	Q	
						9505	N22	W07	0	0	0	21	Q	
						9506	N19	E08	0	0	0	21	E	
						9509	S10	W18	0	0	0	21	Q	
						9510	S06	W35	0	0	0	21	Q	
						9511	N11	E53	0	0	0	21	Q	
173	22	21	212	200	13	9501	S13	W64	0	0	0	22	Q	SOL: Active
						9503	N16	W33	1	0	0	22	E	MAG: Quiet
						9504	N08	W28	3	0	0	22	Q	PRO: Quiet
						9505	N21	W21	0	0	0	22	Q	
						9506	N19	W04	1	0	0	22	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
174	23	22	203	204	9	9509	S11	W31	0	0	0	22	Q	SOL: Active MAG: Quiet PRO: Quiet
						9510	S06	W49	0	0	0	22	Q	
						9511	N10	E39	0	0	0	22	Q	
						9512	S23	E31	0	0	0	22	Q	
						9513	N21	E76	0	0	0	22	Q	
						9501	S13	W78	0	0	0	23	Q	
						9503	N17	W46	4	1	0	23	E	
						9504	N09	W42	1	0	0	23	Q	
						9505	N21	W34	0	0	0	23	Q	
						9506	N19	W18	0	0	0	23	Q	
175	24	23	228	106	8	9509	S10	W45	3	0	0	23	E	SOL: Active MAG: Quiet PRO: Quiet
						9510	S07	W64	0	0	0	23	Q	
						9511	N10	E25	4	2	0	23	Q	
						9512	S22	E17	0	0	0	23	Q	
						9513	N22	E66	0	0	0	23	Q	
						9514	N17	E65	0	0	0	23	Q	
						9501	S13	W90	0	0	0	24	Q	
						9503	N16	W61	5	0	0	24	E	
						9504	N08	W56	0	0	0	24	Q	
						9506	N18	W34	0	0	0	24	Q	
176	25	24	212	195	11	9509	S09	W60	1	0	0	24	Q	SOL: Active MAG: Quiet PRO: Quiet
						9510	S07	W78	0	0	0	24	Q	
						9511	N10	E13	20	2	1	24	E	
						9512	S22	E05	0	0	0	24	Q	
						9513	N23	E56	0	0	0	24	Q	
						9514	N17	E54	0	0	0	24	Q	
						9515	S06	E46	1	0	0	24	Q	
						9516	N12	E70	0	0	0	24	Q	
						9503	N15	W75	1	0	0	25	E	
						9504	N07	W70	0	0	0	25	Q	
177	26	25	220	182	7	9506	N17	W46	1	0	0	25	Q	SOL: Active MAG: Quiet PRO: Quiet
						9509	S10	W76	0	0	0	25	Q	
						9511	N10	E00	2	0	0	25	E	
						9512	S22	W09	0	0	0	25	Q	
						9513	N23	E44	0	0	0	25	Q	
						9514	N17	E41	0	0	0	25	Q	
						9515	S06	E32	0	0	0	25	Q	
						9516	N11	E55	0	0	0	25	Q	
						9503	N16	W86	2	0	0	26	E	
						9504	N08	W83	0	0	0	26	Q	
178	27	26	177	168	8	9506	N17	W61	2	0	0	26	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9511	N09	W14	0	0	0	26	Q	
						9512	S24	W23	0	0	0	26	Q	
						9513	N22	E31	0	0	0	26	Q	
						9514	N17	E28	0	0	0	26	Q	
						9515	S07	E19	0	0	0	26	Q	
						9516	N12	E42	0	0	0	26	Q	
						9517	S15	W59	3	0	0	26	Q	
						9504	N08	W98	0	0	0	27	Q	
						9506	N18	W75	0	0	0	27	Q	
179	28	27	185	148	8	9511	N10	W27	0	0	0	27	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9512	S22	W36	0	0	0	27	Q	
						9513	N22	E17	2	0	0	27	E	
						9514	N16	E14	2	0	0	27	Q	
						9515	S06	E05	0	0	0	27	Q	
						9516	N11	E27	0	0	0	27	Q	
						9517	S14	W72	0	0	0	27	Q	
						9506	N18	W87	0	0	0	28	Q	
						9511	N10	W37	0	0	0	28	Q	
						9512	S23	W50	4	0	0	28	E	
9513	N22	E05	0	0	0	28	E							

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A- index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
180	29	28	143	140	2	9514	N16	E00	0	0	0	28	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9515	S07	W09	0	0	0	28	Q	
						9516	N11	E14	0	0	0	28	Q	
						9518	S48	E45	5	0	0	28	E	
						9519	N17	E23	0	0	0	28	Q	
						9520	S10	E25	0	0	0	28	Q	
						9511	N10	W54	3	0	0	29	E	
						9512	S22	W68	2	0	0	29	E	
						9513	N22	W10	0	0	0	29	Q	
						9514	N17	W14	0	0	0	29	Q	
						9515	S05	W23	0	0	0	29	Q	
						9516	N12	E01	0	0	0	29	Q	
						9518	S47	E34	0	0	0	29	E	
						9519	N18	E11	0	0	0	29	Q	
181	30	29	98	140	4	9521	S06	E48	0	0	0	29	Q	SOL: Eruptive MAG: Quiet PRO: Quiet
						9522	S08	E66	0	0	0	29	Q	
						9511	N11	W67	0	0	0	30	Q	
						9512	S22	W83	0	0	0	30	Q	
						9513	N21	W25	0	0	0	30	Q	
						9515	S06	W38	0	0	0	30	Q	
						9516	N12	W14	0	0	0	30	Q	
						9518	S47	E22	0	0	0	30	Q	
						9522	S08	E52	0	0	0	30	Q	
						9523	S48	E35	1	0	0	30	E	

(1) Region Forecast and Flare (SOL) Advice

Q = Quiet (<50% probability of C-class flares)
E = Eruptive (C-class flares expected, probability >=50%)
A = Active (M-class flares expected, probability >=50%)
M = Major (X-class flares expected, probability >=50%)
P = Proton (Proton flares expected, probability >=50%)
W = Warning (activity levels are expected to increase, but no numerical forecast given)
/ = No forecast available

Magnetic (MAG) Geoadvice

'Quiet'
'Active' conditions expected (A>=20 or K=4)
'Minor' storm expected (A>=30 or K=5)
'Major' storm expected (A>=50 or K>=6)
'Severe' storm expected (A>=100 or K>=7)
'IP' magstorm in progress (A>=30 or K>=4)
'Warning' (activity levels are expected to increase, but no numerical forecast given)
'/' no forecast available

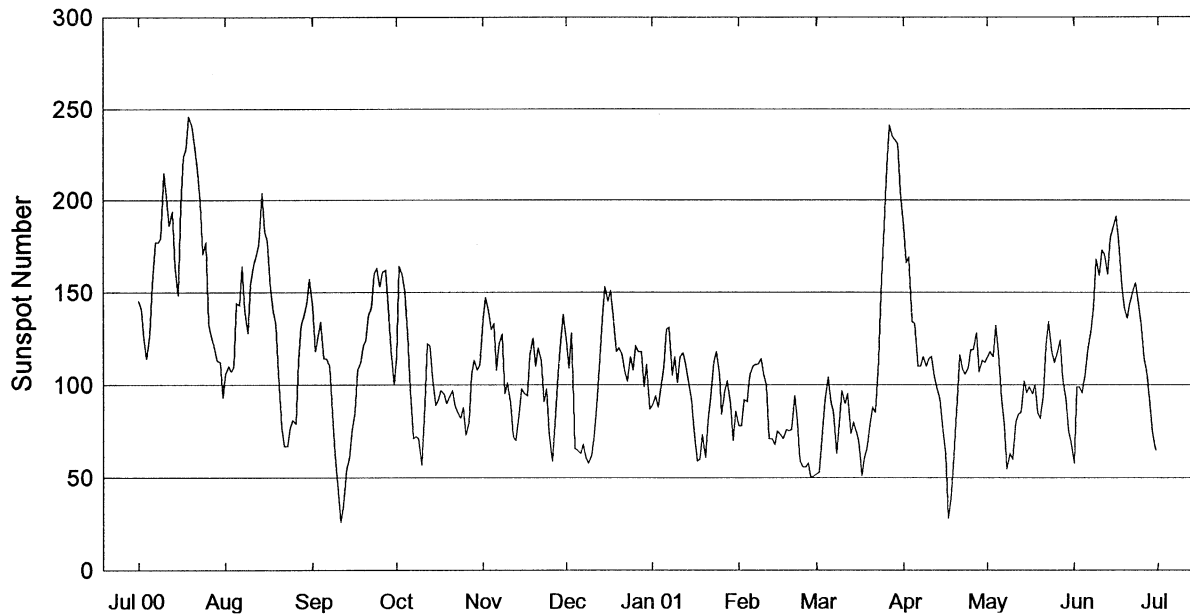
Proton (PRO) Geoadvice

'Quiet'
'Proton' event expected (10pfu at >10MeV)
'Major' proton event expected (100pfu at >100 MeV)
'IP' proton event in progress (>10 MeV)
'Warning' (activity levels are expected to increase, but no numerical forecast given)
'/' no forecast available

STRATWARM ALERTS - NONE

International Relative Sunspot Numbers Jul 2000 - Jun 2001

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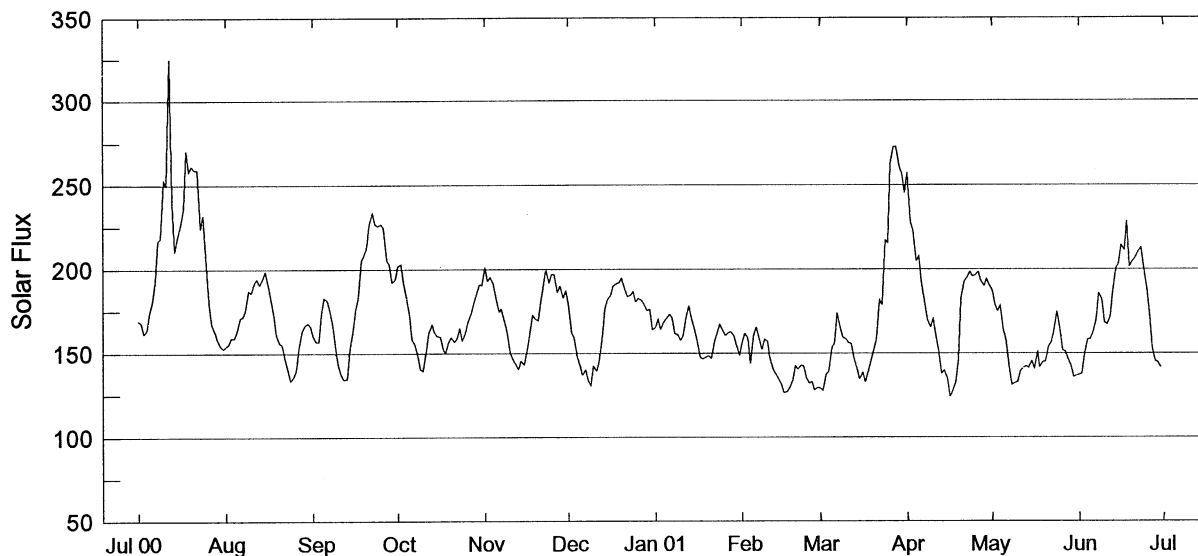
Day	Jul 00	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar	Apr*	May*	Jun*
1	145	106	142	115	140	116	89	78	52	186	115	58
2	141	110	118	153	147	109	94	78	53	166	118	99
3	124	107	128	159	141	118	88	92	75	169	115	99
4	114	110	134	150	130	72	98	91	92	134	132	96
5	127	144	114	128	133	65	110	105	104	133	118	106
6	154	143	114	97	108	57	130	110	91	110	92	119
7	177	164	110	66	122	68	131	111	85	110	79	129
8	177	140	85	72	127	57	105	111	63	115	55	142
9	179	128	55	71	95	58	115	114	79	110	63	168
10	215	154	42	57	101	62	101	105	97	114	60	159
11	202	165	26	82	90	72	115	100	90	115	80	173
12	186	170	35	122	72	89	117	71	95	103	84	171
13	194	176	63	121	70	114	111	71	74	98	85	160
14	164	204	60	104	84	135	100	68	80	92	102	180
15	148	183	77	83	98	153	92	75	75	75	96	186
16	197	178	85	92	95	145	75	73	70	63	99	191
17	224	152	108	97	94	151	59	71	51	28	95	178
18	228	140	112	95	116	138	60	76	61	38	100	153
19	246	133	121	90	125	118	73	75	66	62	85	141
20	241	106	124	94	110	127	61	76	80	86	82	136
21	231	77	137	97	120	116	81	94	88	116	95	144
22	216	67	142	89	113	107	93	81	85	109	121	151
23	199	67	160	85	91	102	112	59	113	106	134	155
24	171	77	163	82	98	115	118	56	149	109	118	145
25	177	81	153	88	74	108	106	56	186	119	112	131
26	133	79	161	73	59	121	84	58	218	119	118	114
27	126	113	162	80	84	118	97	50	241	128	124	107
28	120	132	142	106	106	118	102	51	235	107	103	89
29	113	138	119	113	123	110	90		233	113	92	74
30	112	144	100	108	138	111	70		231	112	75	65
31	93	157		111		87	86		205		69	
Mean	170.1	130.5	109.7	99.4	106.8	104.4	95.6	80.6	113.5	108.2	97.3	134.0

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux

Jul 2000 - Jun 2001

Adjusted to 1 AU



Day	Jul 00	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb	Mar	Apr	May	Jun
1	169.2	153.9	160.5	201.9	201.2	179.3	165.3	156.2	129.0	257.2	187.4~	136.8
2	167.9	155.1	156.7	202.9	193.2	162.3	170.2	161.6	127.4	227.9	179.0	137.8
3	161.5	158.8	156.7	192.1	195.5	158.9	164.2	159.0	137.3	223.1	175.1	149.5
4	163.7	158.7	173.6	184.1	191.4	147.6	168.8	144.0	138.7	205.0	178.6	158.3
5	174.4	163.2	183.1	173.7	183.1	142.7	170.5	160.7	153.4	207.8*	163.5	158.0
6	180.1	170.8	181.5	157.9	174.9	136.9	173.4	165.3	155.4	192.0~	157.8	162.4
7	193.5	171.6	175.8	155.3	176.6	139.9	170.9	159.6	174.0	180.0	140.9	169.8
8	217.1	175.6	165.7	148.6	169.5	134.1	161.5	152.3	164.8	169.7	131.1	185.7
9	218.4	187.2	153.0	140.4	163.0	130.7	160.8	158.1	159.2	165.4	131.9	182.4
10	252.7	185.9	142.5	139.1	150.4	142.1	157.4	156.5	158.0	170.4	133.0	168.0
11	249.7	192.3	136.7	150.8	146.6	139.2	160.5	147.4	155.8	160.3	139.4	167.4
12	325.1+	194.3	134.2	161.9	143.6	145.2	172.5	140.9	155.7	149.8	141.0	171.6
13	239.6	190.9	134.8	167.2	140.6	159.5	178.3	137.8	145.6	137.8	141.9	187.1
14	210.6	194.3	152.5	162.3	145.4	176.5	170.6	134.6	140.7	139.6	141.2	200.9
15	220.1	198.9	161.1	160.1	143.2	181.9	163.8	131.8	134.7	135.1	145.2	203.2
16	226.1	190.3	176.4	159.8	150.7	184.4	156.6	126.5	138.5	124.3	140.9	214.3
17	235.8	181.5	183.2	153.0	159.6	190.4	147.0	126.8	132.9	127.1	150.8	211.2
18	270.5	173.6	205.7	149.9	172.9	191.6	146.6	129.0	138.5	133.0	141.5	228.5
19	258.0	160.8	208.8	156.5	170.7	192.2	147.7	134.0	145.7	145.8	144.6	201.7
20	261.1	156.0	213.1	159.3	169.6	194.8	148.3	142.3	152.1	182.2	144.9	205.0
21	259.0	154.9	226.7	156.5	180.9	188.2	146.7	140.5	158.2	193.0	153.8	206.9
22	259.0	147.5	233.8	158.6	190.1	183.8	157.1	142.7	181.8	194.6	155.8	210.3
23	224.3	139.9	226.7	164.8	200.1	184.7	162.0	142.2	178.9	198.6	162.8	213.0
24	232.0	133.5	225.8	157.5	192.1	186.7	167.2	134.6	217.5	195.8	174.7	201.3
25	208.2	136.0	226.8	162.0	197.0#	180.9	163.4	132.2	215.7	196.3	166.1	188.4
26	180.1	139.9	224.7	168.9	197.0	182.6	160.5	132.8	262.6	198.7	151.3	173.5
27	167.4	153.2	205.5	173.7	186.6	181.4	161.8	128.1	272.4	193.3	150.8	152.8
28	162.7	163.2	203.0	179.7	190.3	179.3	162.6	129.4	272.6	190.4	146.9	144.9
29	157.9	166.5	192.6	184.5	183.2	175.5	160.5		261.0	194.5	142.3	144.6
30	154.5	167.9	194.0	191.0	187.0	176.1	154.9		256.3	190.7	136.0	141.2
31	152.4	165.9		190.5		163.9	148.8		245.3		136.6	
Mean	211.4	167.2	183.8	166.6	174.9	168.2	161.3	143.1	176.1	179.3	152.0	179.2

NOTE: #1800UT reading - burst IP at 2000UT;

+ Burst in progress.

~ 1700UT reading - burst IP at 2000UT; * 2300UT reading - burst IP at 2000UT.

DAILY SOLAR INDICES
June 2001

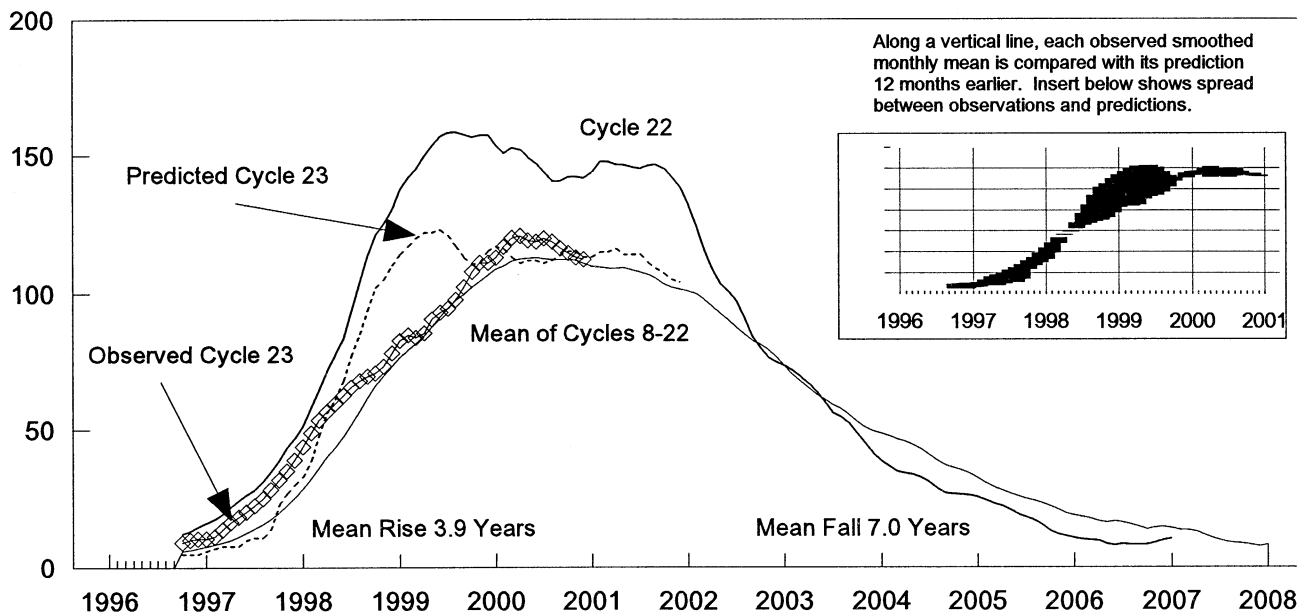
Day	Day of Year	Bartels Cycle Day	Sunspot Numbers		Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit								
			Int	Amer		SGMR (15400)	SGMR (8800)	SGMR (4995)	Pentic (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
1	152	11	58	66	133.0	582	281	188	136.8	118	109	65	40	15
2	153	12	99	107	134.0	371	219	142	137.8	106	98	58	36	14
3	154	13	99	108	145.3	556	289	204	149.5	127	111	66	38	20
4	155	14	96	114	153.8	576	290	221	158.3	135	117	68	44	41
5	156	15	106	113	153.4	594	281	200	158.0	138	115	61	38	14
6	157	16	119	128	157.7	581	277	199	162.4	142	118	61	40	23
7	158	17	129	146	164.8	591	294	212	169.8	149	127	64	40	16
8	159	18	142	167	180.2	590	293	220	185.7	155	133	74	47	25
9	160	19	168	185	177.0	590	300	227	182.4	154	135	69	53	41
10	161	20	159	177	163.0	594	307	225	168.0	155	133	69	44	23
11	162	21	173	194	162.4	586	291	215	167.4	150	131	72	41	20
12	163	22	171	183	166.4	563	306	225	171.6	152	129	71	43	17
13	164	23	160	178	181.4	599	308	237	187.1	161	135	67	43	19
14	165	24	180	190	194.7	609	327	260	200.9	176	144	70	46	23
15	166	25	186	206	196.9	564	321	257	203.2	174	142	64	41	29
16	167	26	191	204	207.6	594	325	261	214.3	182	146	60	38	22
17	168	27	178	184	204.6	566	318	256	211.2	184	143	58	35	23
18	169	1	153	162	221.3	586	309	238	228.5	184	146	64	40	28
19	170	2	141	153	195.4	575	307	240	201.7	182	147	64	38	16
20	171	3	136	153	198.5	577	312	241	205.0	178	144	66	39	17
21	172	4	144	166	200.3	574	311	239	206.9	188	148	68	40	18
22	173	5	151	170	203.6	568	322	250	210.3	182	149	68	44	31
23	174	6	155	174	206.2	584	330	260	213.0	194	152	67	42	34
24	175	7	145	172	194.8	569	304	233	201.3	178	140	69	47	28
25	176	8	131	153	182.4	565	299	223	188.4	165	135	62	41	19
26	177	9	114	134	167.9	579	296	215	173.5	159	130	61	39	15
27	178	10	107	113	147.9	563	282	194	152.8	142	121	64	36	16
28	179	11	89	94	140.2	553	275	184	144.9	129	115	64	36	15
29	180	12	74	82	139.9	540	273	181	144.6	129	121	64	36	14
30	181	13	65	75	136.6	573	275	185	141.2	122	113	57	35	15
MEAN			134.0	148.4	173.7	570	297	221	179.2	156	130	65	40	21

The International and American sunspot numbers shown above are preliminary values.

NOTE: Radio flux values are from Sagamore Hill, Massachusetts, USA.

1700UT reading - burst in progress at 2000UT.

Cycle 23 Smoothed Sunspot Numbers: Observed and Predicted



Smoothed Sunspot Numbers (Observed and Predicted) for Parts of Solar Cycles 22 and 23

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1993	71	69	67	64	60	56	55	52	48	45	41	38	56
1994	37	35	34	34	33	31	29	27	27	27	26	26	31
1995	24	23	22	21	19	18	17	15	13	12	11	11	17
1996	10	10	10	9	8*	9	8	8	8	9**	10	10	8
1997	11	11	14	17	18	20	23	25	28	32	35	39	23
1998	44	49	53	57	59	63	65	68	69	71	73	78	62
1999	83	85	84	85	90	93	94	98	102	108	111	111	95
2000	113	117	120	121+	119	119	120	119	116	115	113	112	107
2001	112	112	112	111	111	110	109	108	107	106	105	104	109
	(3)	(6)	(8)	(13)	(17)	(18)	(18)	(19)	(22)	(23)	(23)	(23)	(16)
Solar Cycle 22				Solar Cycle 23				Min, Max, and Predictions					

* May 1996 marks Cycle 22's mathematical minimum. ** October 1996 marks the consensus minimum NGDC is now using.

+ April 2000 marks Cycle 23 maximum.

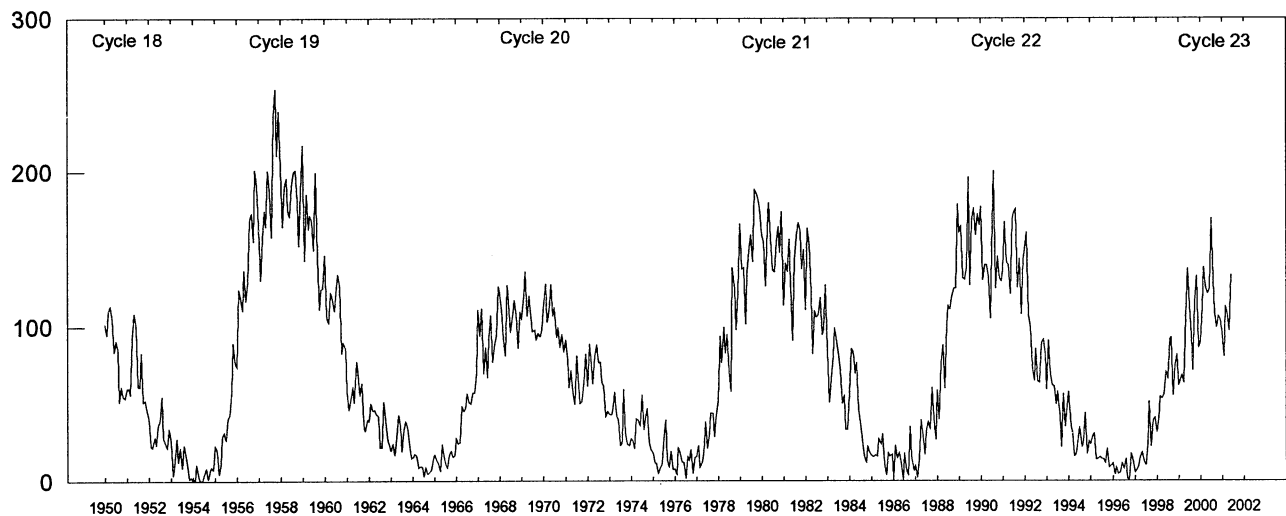
Observed and Predicted Numbers. For the end of Cycle 22, and the rise and decline of Cycle 23, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Mar 2001 and on provisional numbers thereafter. Table entries with numbers in parentheses below them denote predictions by the McNish-Lincoln method. (See page 9 in the Jul 1987 supplement to *Solar-Geophysical Data*.) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval. Subtracting the number from the predicted value generates the lower limit. Consider, for example, the December 2001 prediction. There exists a 90% chance that in December 2001, the actual smoothed number will fall somewhere between 81 and 127.

Points to Ponder. The McNish-Lincoln prediction method generates useful estimates of smoothed, monthly mean sunspot numbers for no more than 12 months ahead. Beyond 12 months, the predictions regress toward the mean of all 15 cycles of observations used in the computation. Moreover, the method remains very sensitive to the date defining the onset of the current cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the consensus minimum value of 8.8 that occurred in October 1996.

Note: Please visit <http://www.sec.noaa.gov> for solar minimum and Cycle 23 discussions.

Mean Monthly Sunspot Numbers Jan 1950 - Jun 2001

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Jun 01



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	101.6	94.8	109.7	113.4	106.2	83.6	91.0	85.2	51.3	61.4	54.8	54.1	83.9
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4 m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2 M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	122.3
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2 m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9 M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6 m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4 M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4 m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6 M
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6
1991	136.9	167.5	141.9	140.0	121.3	169.7	173.7	176.3	125.3	144.1	108.2	144.4	145.7
1992	150.0	161.1	106.7	99.8	73.8	65.2	85.7	64.5	63.9	88.7	91.8	82.6	94.3
1993	59.3	91.0	69.8	62.2	61.3	49.8	57.9	42.2	22.4	56.4	35.6	48.9	54.6
1994	57.8	35.5	31.7	16.1	17.8	28.0	35.1	22.5	25.7	44.0	18.0	26.2	29.9
1995	24.2	29.9	31.1	14.0	14.5	15.6	14.5	14.3	11.8	21.1	9.0	10.0	17.5
1996	11.5	4.4	9.2	4.8	5.5	11.8	8.2	14.4	1.6	0.9	17.9	13.3	8.6 m
1997	5.7	7.6	8.7	15.5	18.5	12.7	10.4	24.4	51.3	22.8	39.0	41.2	21.5
1998	31.9	40.3	54.8	53.4	56.3	70.7	66.6	92.2	92.9	55.5	74.0	81.9	64.3
1999	62.0	66.3	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	93.2
2000	90.1	112.9	138.5	125.5	121.6	124.9	170.1	130.5	109.7	99.4	106.8	104.4	119.6 M
2001	95.6	80.6	113.5	108.2	97.3	134.0							104.9

Values are preliminary after Mar 01. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

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Jun 01

H α SOLAR FLARES

JUNE 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	(Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
GOES	01	0312	0321	0328						16		B 9.0						7.7E-04
LEAR		0559	0600	0603	N18	W90	9481	05	25.5	4	SF		3	E		26		
SVTO		0600	0600	0602	N19	W90	9481	05	25.5	2	SF		3	E		21		
GOES		1157	1202	1206						9		C 1.6						6.2E-04
GOES		1458	1502	1506	N18	E04	9475			8	SF	B 9.4						3.8E-04
HOLL		1500	1502	1507	N18	E04	9475	06	1.9	7	SF		3	E		23		
GOES		1506	1509	1512	S24	W57	9483			6	SF	C 1.4						4.4E-04
HOLL		1508	1508	1514	S24	W57	9483	05	28.3	6	SF		3	E		28		
GOES		1623	1628	1634	S24	W58	9483			11	SF	C 1.1						6.7E-04
HOLL		1624	1626	1630	S24	W58	9483	05	28.3	6	SF		3	E		18		
HOLL		1813	1813	1819	S24	W59	9483	05	28.3	6	SF		3	E		17		
GOES		2116	2121	2137						21		C 1.6						1.8E-03
GOES	02	0006	0019	0032	S08	E35	9484			26	SF	C 1.3						1.9E-03
HOLL		0011	0016	0029	S08	E35	9484	06	4.6	18	SF		3	E		15		
HOLL		0044	0049	0051	S08	E34	9484	06	4.6	7	SF		3	E		12		
GOES		0429	0433	0436						7		C 1.2						4.0E-04
GOES		0528	0532	0549						21		B 7.9						9.2E-04
GOES		0720	0725	0729						9		C 1.5						6.9E-04
GOES		0815	0825	0844						29		C 1.3						2.1E-03
GOES		1037	1040	1043	S08	E30	9484			6	SF	C 1.0						3.1E-04
SVTO		1040E	1041U	1048	S08	E30	9484	06	4.7	8D	SF		2	E		13		F
GOES		1322	1327	1331						9		B 9.4						4.0E-04
HOLL		1337	1341	1348	S07	E28	9484	06	4.7	11	SF		3	E		13		FH
RAMY		1339	1339	1344	S07	E28	9484	06	4.7	5	SF		3	E		32		F
RAMY		1350	1351	1354	S08	E27	9484	06	4.6	4	SF		3	E		95		F
GOES		2006	2009	2013						7		B 5.6						2.1E-04
LEAR	03	0034	0037U	0119D	S06	E21	9484	06	4.6	45D	SF		3	E		33		
GOES		0656	0659	0701	S16	E70	9488			5	SF	C 1.1						2.3E-04
LEAR		0659	0700	0704	S16	E70		06	8.6	5	SF		3	E		26		
GOES		1351	1355	1358	S19	E73	9488			7	SF	B 7.8						2.7E-04
HOLL		1354	1354	1400	S18	E73	9488	06	9.1	6	SF		3	E		13		
RAMY		1354	1355	1400	S19	E73	9488	06	9.2	6	SF		3	E		11		
GOES		1403	1409	1431						28		C 1.1						1.8E-03
GOES		1858	1905	1913	S06	E10	9484			15	SF	C 1.0						8.3E-04
RAMY		1900	1902	1911	S06	E10	9484	06	4.5	11	SF		3	E		17		F
HOLL		1902	1903	1910	S06	E11	9484	06	4.6	8	SF		3	E		23		
GOES		2004	2011	2028	S06	E09	9484			24	SF	C 2.4						2.4E-03
RAMY		2007	2010	2026	S06	E09	9484	06	4.5	19	SF		3	E		48		F
HOLL		2009	2010	2026	S06	E10	9484	06	4.6	17	SF		3	E		44		
HOLL		2042	2043	2047	N28	W20	9486	06	2.3	5	SF		3	E		22		F
HOLL		2048	2049	2051	N28	W20	9486	06	2.3	3	SF		3	E		14		
GOES		2059	2122	2130	S19	E62	9488			31	1F	C 5.6						6.6E-03
RAMY		2101	2119	2142	S21	E62	9488	06	8.6	41	1F		3	E		209		FH
HOLL		2101	2120	2147	S19	E62	9488	06	8.6	46	1F		3	E		214		FE
GOES	04	0034	0046	0106	N27	W20	9486			32	SF	C 2.2						3.7E-03
HOLL		0037	0047	0056	N27	W20	9486	06	2.5	19	SF		3	E		28		F
LEAR		0042	0045	0049	N29	W22	9486	06	2.3	7	SF		3	E		26		UF
GOES		0340	0351	0357						17		C 1.2						9.9E-04
GOES		0441	0449	0457						16		C 1.2						1.0E-03
GOES		0803	0812	0820	S18	E57	9488			17	1F	M 2.4						1.5E-02
SVTO		0812E	0821	0850	S18	E57	9488	06	8.7	38D	1F		2	E		236		
GOES		1510	1515	1523	S19	E52	9488			13	SF	C 1.4						9.1E-04
HOLL		1511	1517	1528	S19	E52	9488	06	8.6	17	SF		3	E		31		F
SVTO		1513	1514	1528	S18	E53	9488	06	8.7	15	SF		2	E		49		
GOES		1611	1633	1644	N24	W59	9474			33	SF	C 3.2						3.8E-03
SVTO		1624	1627	1649	N22	W60	9474	05	31.1	25	SF		2	E		48		F
HOLL		1625	1628	1646	N24	W59	9474	05	31.1	21	SF		3	E		36		F
HOLL		1850	1853	1859	S19	E50	9488	06	8.6	9	SF		3	E		43		
RAMY		1852	1853	1859	S21	E49	9488	06	8.5	7	SF		3	E		45		
GOES		2106	2110	2113	S05	W04	9484			7	SF	C 1.3						5.2E-04
RAMY		2107	2110	2116	S05	W04	9484	06	4.6	9	SF		3	E		23		F
HOLL		2108	2111	2116	S06	W05	9484	06	4.5	8	SF		3	E		11		
GOES		2156	2204	2211	N28	W34	9486			15	SF	C 1.4						1.1E-03
HOLL		2202	2203	2208	N28	W34	9486	06	2.3	6	SF		3	E		20		F
GOES		2234	2259	2309			9484			35		M 1.7						1.7E-02

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JUNE 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
							Mo	Day						Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
HOLL	04	2237	2255	2340	N29	W32	9486	06	2.4	63	1F	3	E		121		FE
HOLL		2251	2252	2314	S04	W03	9484	06	4.7	23	SF	3	E		77		F
HOLL	05	0036	0036	0052	S18	E46	9488	06	8.5	16	SF	3	E		24		F
GOES		0441	0451	0501	S18	E44	9488			20	2N M	2.5					2.0E-02
LEAR		0444	0446	0521	S18	E45	9488	06	8.6	37	2B	2	E		342		ZF
SVTO		0444	0450	0521	S18	E44	9488	06	8.5	37	2N	3	E		337		FH
GOES		0756	0801	0805						9	B	9.3					4.3E-04
GOES		1158	1205	1212						14	C	1.6					1.1E-03
GOES		1416	1421	1424	S05	W15	9484			8	SN	C	9.4				2.4E-03
HOLL		1419	1421	1441	S05	W15	9484	06	4.5	22	SN	3	E		92		F
GOES		1556	1601	1606						10	C	1.1					5.6E-04
GOES		2345	2348	2351						6	B	7.9					2.6E-04
GOES	06	0134	0137	0142						8	C	1.7					6.2E-04
GOES		0618	0622	0627						9	B	8.1					4.0E-04
GOES		0813	0817	0827	S19	E22	9488			14	SF	C	2.0				1.2E-03
LEAR		0816	0817	0831	S19	E22	9488	06	8.0	15	SF	3	E		52		F
GOES		1027	1033	1050						23	C	1.3					1.5E-03
RAMY		1159	1159	1207	N24	W73	9475	05	31.8	8	SF	3	E		13		
RAMY		1226	1226	1234	N23	W73	9474	05	31.9	8	SF	3	E		11		
RAMY		1252	1253	1259	N07	W69	9475	06	1.4	7	SF	3	E		13		F
GOES		1302	1306	1310	S19	E21	9488			8	SF	C	1.1				4.7E-04
HOLL		1304	1305	1331	S19	E21	9488	06	8.1	27	SF	3	E		60		
HOLL		1316	1317	1324	N21	W74	9475	05	31.9	8	SF	3	E		13		
HOLL		1344	1344	1352	S18	E21	9488	06	8.2	8	SF	3	E		15		F
HOLL		1350	1352	1354	N19	W85	9474	05	31.1	4	SF	3	E		18		
HOLL		1442	1444	1448	S04	W26	9484	06	4.7	6	SF	3	E		22		
GOES		1443	1446	1448	S04	W26	9484			5	SF	C	1.1				3.1E-04
RAMY		1444	1445	1447	S04	W26	9484	06	4.7	3	SF	3	E		11		
HOLL		1445	1446	1450	N26	W57	9486	06	2.2	5	SF	3	E		30		
RAMY		1445	1446	1450	N29	W57	9486	06	2.1	5	SF	3	E		24		F
HOLL		1608	1610	1617	S18	E20	9488	06	8.2	9	SF	3	E		19		
GOES		1658	1704	1713						15	C	1.0					8.4E-04
GOES		1717	1728	1731	N23	W80	9475			14	1F	C	3.0				1.5E-03
HOLL		1723	1726	1737	N23	W80	9475	05	31.5	14	1F	3	E		239		H
RAMY		1725	1726	1735	N27	W85	9474	05	31.1	10	1F	3	E		158		H
HOLL		1805	1805	1810	N23	W79	9474	05	31.7	5	SF	3	E		60		
RAMY		1805	1806	1811	N25	W80	9475	05	31.5	6	SF	3	E		37		
HOLL		1846	1847	1853	S18	E18	9488	06	8.1	7	SF	3	E		22		F
RAMY		1847	1847	1851	S20	E17	9488	06	8.1	4	SF	3	E		12		F
GOES		1910	1920	1924	N23	W84	9474			14	2F	C	4.7				2.4E-03
HOLL		1914	1918	1927	N23	W84	9475	05	31.3	13	2F	3	E		264		FH
HOLL		1934	1937	1944	S19	E17	9488	06	8.1	10	SF	3	E		25		UF
GOES		2119	2153	2201	S18	E21	9488			42	SF	C	3.3				5.6E-03
HOLL		2122	2124	2156	S18	E21	9488	06	8.5	34	SF	3	E		96		F
HOLL		2144	2144	2150	S06	W30	9484	06	4.7	6	SF	3	E		17		
HOLL		2348	2356	2420	S17	E21	9488	06	8.6	32	SF	3	E		21		
LEAR		2355	2355	2404	S17	E20	9488	06	8.5	9	SF	2	E		12		
GOES	07	0031	0042	0059						28	C	1.5					2.3E-03
GOES		0103	0106	0109						6	C	1.9					5.4E-04
LEAR		0633	0634	0641	S06	W35	9484	06	4.6	8	SF	3	E		27		F
GOES		0810	0813	0815	S17	E14	9488			5	SF	C	1.1				2.7E-04
LEAR		0813	0813	0816	S17	E14	9488	06	8.4	3	SF	3	E		23		U
GOES		1259	1303	1305						6	C	1.3					3.7E-04
HOLL		1328	1333	1345	N19	E58	9492	06	12.0	17	SF	3	E		11		
RAMY		1329	1330	1336	N17	E57	9492	06	11.9	7	SF	3	E		11		
GOES		1609	1614	1617	S06	W44	9484			8	SF	C	2.5				7.7E-04
RAMY		1612	1613	1620	S06	W44	9484	06	4.4	8	SF	3	E		39		F
GOES		1905	1910	1914						9	C	3.8					1.2E-03
GOES		2003	2007	2011						8	C	6.4					1.7E-03
GOES		2102	2136	2142						40	C	2.3					4.4E-03
GOES	08	0217	0228	0242	S17	E04	9488			25	1N	C	6.0				6.5E-03
LEAR		0220	0228	0323	S17	E04	9488	06	8.4	63	1N	3	E		105		UF
GOES		0332	0336	0340						8	C	1.5					7.4E-04
GOES		0345	0412	0414						29	C	2.1					3.3E-03

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	(Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
GOES	08	1111	1117	1124	S08	W25				13	SF	C 1.9						1.3E-03
RAMY		1113	1116	1130	S08	W25		06	6.6	17	SF		3	E		17		3.5E-03
GOES		1310	1320	1326						16		C 4.5						2.7E-03
GOES		1558	1603	1607	S09	W24	9494			9	SF	C 7.2						1.6E-03
HOLL		1600	1604	1633	S09	W24	9494	06	6.9	33	SF		3	E		66		F
GOES		1759	1802	1816	N04	E54	9493			17	SF	C 1.8						1.6E-03
HOLL		1800	1801	1817	N06	E54	9493	06	12.8	17	SF		3	E		63		F
RAMY		1801	1801	1805	N04	E54	9493	06	12.8	4	SF		3	E		26		F
GOES		1918	1927	1934	S09	W30	9494			16	SF	M 1.0						6.1E-03
HOLL		1928	1929	1958	S09	W30	9494	06	6.5	30	SF		3	E		39		1.9E-03
GOES		2044	2050	2054						10		C 5.1						2.2E-03
GOES		2101	2108	2111						10		C 4.4						
HOLL		2132E	2134U	2146	S09	W30	9494	06	6.6	14D	1F		3	E		145		F
HOLL		2214	2216	2218	S09	W30	9494	06	6.7	4	SF		3	E		11		5.7E-04
GOES		2214	2216	2219	S09	W30	9494			5	SF	C 1.9						
HOLL		2215	2219	2224	N07	W18		06	7.6	9	SF		3	E		25		6.2E-03
GOES		2245	2256	2307						22		C 6.5						1.5E-02
GOES		2312	2324	2350						38		C 7.5						
HOLL	09	0049	0049	0055	N06	E50	9493	06	12.8	6	SF		3	E		21		7.6E-04
GOES		0142	0145	0149						7		C 2.1						1.7E-03
GOES		0230	0234	0246						16		C 1.9						8.3E-04
GOES		0255	0258	0302						7		C 2.3						2.5E-03
GOES		0509	0516	0521						12		C 3.7						1.7E-03
GOES		0533	0537	0541						8		C 3.9						
LEAR		0621E	0624U	0633	S07	W35	9494	06	6.6	12D	SF		4	E		17		F
LEAR		0731	0739	0751	S08	W36	9494	06	6.6	20	SF		4	E		19		4.3E-04
GOES		1006	1009	1013						7		C 1.1						2.4E-03
GOES		1020	1029	1037						17		C 2.9						2.4E-03
GOES		1020	1029	1038						18		C 2.8						9.3E-04
GOES		1308	1312	1316	S08	W38	9494			8	SF	C 2.0						F
HOLL		1309	1312	1321	S09	W35	9494	06	6.9	12	SF		3	E		19		F
RAMY		1310	1312	1322	S08	W38	9494	06	6.7	12	SF		3	E		19		F
HOLL		1329	1344	1444	S08	W35	9494	06	6.9	75	SF		3	E		68		F
GOES		1342	1343	1345	S16	W14	9488			3	SF	C 2.0						3.5E-04
HOLL		1343	1345	1349	S16	W14	9488	06	8.5	6	SF		3	E		17		F
RAMY		1436	1438	1446	S07	W39	9494	06	6.7	10	SF		3	E		15		F
HOLL		1449	1450	1454	S07	W35	9494	06	7.0	5	SF		3	E		12		5.7E-04
GOES		1502	1507	1510	S07	W39	9494			8	SF	C 1.3						
RAMY		1505	1506	1515	S07	W39	9494	06	6.7	10	SF		3	E		19		F
HOLL		1505	1508	1519	S08	W38	9494	06	6.8	14	SF		3	E		23		F
RAMY		1529	1531	1536	S06	W40	9494	06	6.6	7	SF		3	E		29		
HOLL		1530	1531	1534	S07	W40	9494	06	6.6	4	SF		3	E		17		
RAMY		1552	1554	1608	S08	W40	9494	06	6.7	16	SF		3	E		25		
HOLL		1621	1624	1628	N26	W13	9487	06	8.7	7	SF		3	E		15		1.5E-03
GOES		1625	1631	1643	N16	E00	9489			18	SF	C 1.6						
RAMY		1628	1629	1640	N16	E01	9489	06	9.8	12	SF		3	E		20		9.0E-04
HOLL		1628	1629	1641	N16	E00	9489	06	9.7	13	SF		3	E		25		F
GOES		1650	1655	1701	S06	W41	9494			11	SF	C 1.4						6.0E-04
RAMY		1653	1701	1705	S06	W41	9494	06	6.6	12	SF		3	E		12		F
HOLL		1829	1830	1834	N06	E46	9493	06	13.2	5	SF		3	E		38		
GOES		1832	1834	1836	S08	W43	9494			4	SF	C 2.6						6.0E-04
HOLL		1833	1839	1855	S08	W43	9494	06	6.5	22	SF		3	E		99		F
HOLL		1835	1839	1845	N06	E46	9493	06	13.2	10	SF		3	E		72		F
GOES		1910	1921	1929	S07	W40	9494			19	1F	C 2.6						2.7E-03
HOLL		1910	1924	1941	S07	W40	9494	06	6.8	31	1F		3	E		101		UF
HOLL		1913	1914	1917	N20	W05	9489	06	9.4	4	SF		3	E		38		
HOLL		2049	2057	2100	S08	W43	9494	06	6.6	11	SF		3	E		15		F
GOES		2101	2119	2215	S08	W45	9494			74	SF	C 3.3						1.1E-02
HOLL		2102	2119	2254	S08	W45	9494	06	6.5	112	SF		3	E		60		F
GOES		2332	2335	2337	S07	W39	9494			5	SF	C 1.2						3.5E-04
HOLL		2335	2336	2339	S07	W39	9494	06	7.1	4	SF		3	E		34		
GOES		2344	2350	2356	N06	E38	9493			12	SF	C 1.8						1.2E-03
HOLL		2345	2350	2403	N06	E38	9493	06	12.8	18	SF		3	E		53		
GOES	10	0057	0104	0108	S08	W42	9494			11	SF	C 9.7						3.7E-03
HOLL		0100	0106	0123	S08	W42	9494	06	6.9	23	SF		3	E		90		
LEAR		0102	0106	0146	S08	W42	9494	06	6.9	44	SF		3	E		32		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
LEAR	10	0142	0142	0200	S16	W13	9488	06	9.1	18	SF		3	E		10		F
GOES		0436	0440	0445						9		C 2.7						1.4E-03
GOES		0620	0626	0645						25		C 8.7						1.0E-02
LEAR		0646E	0646U	0647D	S07	W48	9494	06	6.7	1D	SF		2	E		13		
GOES		0711	0716	0719						8		C 4.2						1.8E-03
LEAR		0843E	0859U	0912D	S08	W50	9494	06	6.6	29D	SF		2	E		53		
GOES		0851	0902	0913	S08	W50	9494			22	SF	C 6.3						6.5E-03
GOES		0928	0932	0936						8		C 4.4						1.8E-03
RAMY		1111	1125	1152	S07	W51	9494	06	6.6	41	SF		3	E		43		F
GOES		1112	1126	1150	S07	W51	9494			38	SF	C 2.2						4.4E-03
RAMY		1137	1141	1146	N06	E34	9493	06	13.0	9	SF		3	E		18		F
RAMY		1138	1139	1146	N21	W06	9489	06	10.0	8	SF		3	E		17		F
GOES		1152	1156	1159	N22	W26	9487			7	SF	C 2.7						9.7E-04
RAMY		1154	1154	1200	N22	W26	9487	06	8.5	6	SF		3	E		33		F
GOES		1210	1214	1215	S12	E34	9497			5	SF	C 1.9						4.8E-04
RAMY		1214	1215	1220	S12	E34		06	13.1	6	SF		3	E		12		
GOES		1241	1247	1253	S07	W51	9494			12	SF	C 2.4						1.6E-03
RAMY		1243	1247	1253	S07	W51	9494	06	6.7	10	SF		3	E		25		F
GOES		1511	1517	1526						15		C 1.4						1.2E-03
HOLL		1542	1542	1546	S12	E34	9497	06	13.2	4	SF		3	E		17		
GOES		1543	1548	1554	S07	W55	9494			11	SF	C 2.5						1.4E-03
HOLL		1545	1547	1611	S07	W55	9494	06	6.5	26	SF		3	E		35		F
GOES		1718	1726	1730	N18	W13	9489			12	SF	C 1.1						7.3E-04
HOLL		1725	1726	1730	N18	W13	9489	06	9.7	5	SF		3	E		11		
GOES		1737	1739	1740	S08	W49	9494			3	SF	C 1.0						1.7E-04
HOLL		1739	1740	1743	S08	W49	9494	06	7.1	4	SF		3	E		21		
GOES		1944	1949	1953	N21	W30	9487			9	SF	C 2.4						9.3E-04
HOLL		1947	1949	1953	N21	W30	9487	06	8.5	6	SF		3	E		49		F
GOES		2111	2123	2134	N28	W26	9487			23	SF	C 2.0						2.4E-03
GOES		2341	2346	2353						12		C 1.3						8.9E-04
GOES	11	0012	0020	0036	S05	W59	9494			24	SF	C 2.3						2.6E-03
LEAR		0015	0019	0025	S05	W59	9494	06	6.6	10	SF		3	E		20		F
GOES		0423	0451	0532						69		C 5.0						1.4E-02
GOES		0533	0552	0611						38		C 7.1						1.1E-02
GOES		1006	1010	1017						11		C 1.6						9.3E-04
GOES		1034	1040	1047						13		C 2.0						1.3E-03
HOLL		1402	1403	1407	N25	W39	9487	06	8.6	5	SF		3	E		18		
RAMY		1403	1403	1406	N27	W38	9487	06	8.6	3	SF		3	E		10		F
GOES		1436	1446	1453	N19	W23	9489			17	SF	C 2.0						1.7E-03
HOLL		1438	1444	1454	N19	W23	9489	06	9.8	16	SF		3	E		31		F
RAMY		1438	1444	1455	N20	W21	9489	06	10.0	17	SF		3	E		26		F
GOES		1524	1545	1600						36		C 2.1						3.3E-03
GOES		2047	2052	2059	S17	W41	9488			12	SF	C 4.3						2.5E-03
HOLL		2048	2051	2101	S17	W41	9488	06	8.7	13	SF		3	E		59		F
RAMY		2048	2051	2101	S15	W42	9488	06	8.7	13	SF		3	E		56		F
GOES		2127	2130	2134						7		C 1.9						6.9E-04
GOES	12	0035	0036	0039	N21	W03	9492			4	SF	C 1.2						2.7E-04
LEAR		0036	0036	0039	N21	W03	9492	06	11.8	3	SF		3	E		14		F
GOES		0321	0334	0402						41		C 3.0						6.6E-03
GOES		0408	0430	0441						33		C 5.1						8.0E-03
GOES		0704	0707	0711	N25	W47	9487			7	SF	C 1.7						6.9E-04
LEAR		0704	0709	0717	N25	W47	9487	06	8.6	13	SF		3	E		23		
GOES		0711	0719	0733	S15	W52	9488			22	1N	C 6.7						6.9E-03
LEAR		0713	0715	0748	S15	W52	9488	06	8.4	35	1N		3	E		213		FH
SVTO		0713	0717	0740	S16	W52	9488	06	8.3	27	SF		3	E		155		FH
GOES		0857	0933	0940						43		C 3.2						6.5E-03
GOES		1242	1257	1303	N21	W50	9487			21	SF	C 2.1						2.0E-03
RAMY		1244	1246	1259	N21	W50	9487	06	8.7	15	SF		3	E		11		
RAMY		1533	1533	1535	S06	W81	9494	06	6.6	2	SF		3	E		18		F
GOES		1658	1704	1710	S07	W79	9494			12	SF	C 2.9						1.7E-03
RAMY		1700	1705	1711	S07	W79	9494	06	6.8	11	SF		3	E		34		F
GOES		1739	1745	1752						13		C 3.3						2.4E-03
GOES		1840	1909	1924						44		C 2.5						5.1E-03
GOES		2051	2056	2101						10		C 2.8						1.6E-03
GOES		2118	2138	2153						35		C 6.0						1.0E-02
GOES	13	0007	0030	0052						45		C 5.3						1.1E-02

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
														Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
GOES	13	0129	0134	0139					10		C 2.4						1.3E-03
GOES		0303	0330	0343					40		C 6.2						1.1E-02
GOES		0422	0433	0444					22		1F M 2.0						1.7E-02
LEAR		0426	0428U	0510D	S25	E74	9502	06	18.9	44D	1F	2	E		100		F
GOES		0742	0747	0753	N14	E80			11		SF C 2.4						1.4E-03
LEAR		0744	0746	0803	N14	E80		06	19.4	19	SF	2	E		97		F
GOES		0802	0806	0811					9		C 2.8						1.3E-03
GOES		0823	0827	0842	N20	W48	9489		19		SF C 3.7						3.6E-03
LEAR		0828	0830	0904	N20	W48	9489	06	9.7	36	SF	3	E		36		
RAMY		1045	1045	1048	N22	W44	9489	06	10.1	3	SF	3	E		25		
GOES		1109	1115	1117					8		C 1.8						8.2E-04
GOES		1122	1142	1151	S29	E66	9502		29		1N M 7.8						5.3E-02
RAMY		1135	1139	1218	S29	E66	9502	06	18.6	43	1N	3	E		187		UH
RAMY		1214	1215	1217	N22	W66	9487	06	8.4	3	SF	3	E		15		
RAMY		1311	1311	1316	N21	W48	9489	06	9.9	5	SF	3	E		10		F
HOLL		1417	1418	1433	N20	W49	9489	06	9.8	16	SF	3	E		52		F
RAMY		1417	1422	1429	N22	W48	9489	06	9.9	12	SF	3	E		55		
GOES		1620	1628	1635	N20	W49	9502		15		SF C 9.1						5.6E-03
RAMY		1621	1627	1640	N21	W49	9489	06	9.9	19	SF	3	E		75		H
HOLL		1621	1628	1639	N20	W49	9489	06	9.9	18	SF	4	E		77		H
HOLL		1621	1628	1702	S27	E65	9502	06	18.7	41	SF	3	E		71		FH
RAMY		1625	1628	1645	S28	E63	9502	06	18.6	20	SF	3	E		45		F
HOLL		1654	1655	1700	N20	W54	9489	06	9.6	6	SF	3	E		32		F
RAMY		1654	1656	1706	N23	W53	9489	06	9.6	12	SF	3	E		39		F
HOLL		1704	1712	1715	S27	E64	9502	06	18.7	11	SF	3	E		23		
GOES		1843	1849	1855					12		C 3.9						2.3E-03
GOES		1952	1957	1959	N20	W52	9489		7		SF C 7.6						1.9E-03
HOLL		1954	1956	2009	N20	W52	9489	06	9.8	15	SF	4	E		97		
GOES		2241	2247	2255					14		C 2.9						2.1E-03
HOLL		2311	2313	2324	N04	W33	9495	06	11.5	13	SF	3	E		14		
LEAR	14	0101E	0112U	0120D	N20	W55	9489	06	9.8	19D	SF	2	E		31		
GOES		0205	0219	0239					34		C 3.2						5.5E-03
LEAR		0304	0305	0316	N23	W72	9487	06	8.6	12	SF	3	E		58		
GOES		0344	0349	0358	N19	W55	9489		14		SF C 3.4						2.5E-03
LEAR		0346	0350	0410	N19	W55	9489	06	9.9	24	SF	3	E		43		
GOES		0933	0943	1037	N19	W58	9489		64		SF C 6.5						2.0E-02
SVTO		0937	0938	1002	N19	W58	9489	06	10.0	25	SF	2	E		31		FH
SVTO		1005	1006	1018	N20	W34	9492	06	11.8	13	SF	3	E		19		F
GOES		1659	1703	1713	N03	W45	9495		14		SF C 4.4						2.7E-03
RAMY		1702	1702	1711	N05	W45	9495	06	11.3	9	SF	3	E		60		H
HOLL		1702	1703	1711	N03	W45	9495	06	11.3	9	SF	3	E		84		H
GOES		2004	2014	2024					20		C 2.9						3.0E-03
GOES	15	0159	0210	0218					19		C 2.1						2.0E-03
LEAR		0520	0520	0524	N17	W44	9492	06	11.9	4	SF	3	E		10		
LEAR		0524	0525	0529	S10	W27	9497	06	13.2	5	SF	3	E		14		F
GOES		0634	0641	0650	S26	E48	9502		16		SF C 3.8						2.8E-03
SVTO		0637E	0639U	0654D	S26	E49	9502	06	19.1	17D	SF	3	E		40		F
LEAR		0637	0639	0655	S26	E48	9502	06	19.0	18	SF	3	E		44		F
GOES		0651	0704	0714	N21	W45	9492		23		SF C 4.5						5.5E-03
LEAR		0652	0655	0806D	N21	W45	9492	06	11.8	74D	SF	3	E		58		F
SVTO		0654	0654U	0702D	N20	W46	9492	06	11.8	8D	SF	3	E		54		
GOES		0849	0853	0857					8		C 2.6						1.1E-03
GOES		1001	1013	1020	S26	E41	9502		19		1N M 6.3						4.2E-02
SVTO		1005	1008	1108	S26	E41	9502	06	18.6	63	1N	3	E		160		FH
RAMY		1240	1240	1246	N20	W73	9489	06	9.9	6	SF	3	E		11		
GOES		1615	1620	1626	S16	E18	9501		11		SF C 2.2						1.2E-03
HOLL		1617	1618	1626	S16	E18	9501	06	17.0	9	SF	3	E		40		FH
RAMY		1618	1618	1625	S16	E17	9501	06	17.0	7	SF	3	E		26		
HOLL		1727	1727	1733	S26	E36	9502	06	18.5	6	SF	3	E		15		
GOES		2007	2012	2030					23		C 3.7						4.0E-03
GOES		2214	2226	2239	N18	E72	9506		25		1F C 9.9						1.1E-02
HOLL		2217	2223	2239	N18	E72	9506	06	21.4	22	1F	3	E		113		F
HOLL		2241	2242	2247	S28	E41	9502	06	19.1	6	SF	3	E		13		F
HOLL		2249	2253	2307	S25	E33	9502	06	18.5	18	SF	3	E		30		F
GOES	16	0146	0158	0206					20		C 5.0						4.4E-03

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Sta	Day	Start	Max	End	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
		(UT)	(UT)	(UT)											Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
GOES	16	0230	0247	0252						22	C 2.2							3.2E-03
GOES		0328	0331	0333						5	C 4.4							1.0E-03
LEAR		0419	0421	0432	N16	E68	9506	06	21.3	13	SF		3	E		20		
LEAR		0458	0500	0517	N04	W64	9495	06	11.4	19	SF		3	E		45		
LEAR		0623	0623	0636	N04	W65	9495	06	11.4	13	SF		3	E		16		
SVTO		0648	0709	0718	N07	W64	9495	06	11.5	30	SF		3	E		29		
GOES		0657	0708	0721	N07	W64	9495			24	SF C 1.9							2.5E-03
SVTO		0806	0807	0809	N07	W64	9495	06	11.5	3	SF		3	E		11		
SVTO		0934	0934	0937	N07	W66	9495	06	11.4	3	SF		3	E		12		
GOES		1103	1118	1215						72	C 2.8							1.1E-02
RAMY		1317	1317	1321	N24	W90	9489	06	9.6	4	SF		3	E		13		
GOES		1853	1913	1930	N21	E50	9505			37	SF C 3.9							6.9E-03
HOLL		1855	1858	1957	N21	E50	9505	06	20.6	62	SF		3	E		73		F
RAMY		1903	1906	1926	N20	E50	9505	06	20.6	23	SF		3	E		33		F
GOES		2003	2010	2024	S29	E25	9502			21	SF C 5.1							4.8E-03
RAMY		2006	2010	2039D	S29	E25	9502	06	18.8	33D	SF		3	E		88		F
GOES		2236	2242	2253						17	C 3.4							3.1E-03
GOES	17	0307	0318	0332	N14	E38	9503			25	SF C 2.2							2.9E-03
LEAR		0312	0315	0319	N14	E38	9503	06	20.0	7	SF		3	E		17		F
LEAR		0313	0314	0325	N09	E36	9504	06	19.8	12	SF		3	E		10		
GOES		0520	0548	0602						42	C 2.1							4.3E-03
GOES		0957	1009	1035						38	C 2.6							5.0E-03
GOES		1345	1356	1415						30	C 1.6							2.5E-03
GOES		1724	1802	1842						78	C 2.0							7.9E-03
GOES		2226	2231	2239						13	C 2.9							1.7E-03
GOES	18	0157	0230	0333	N19	E46	9506			96	SF C 1.6							8.2E-03
LEAR		0200	0201	0207	N19	E46	9506	06	21.6	7	SF		3	E		21		F
GOES		0611	0619	0641	N09	W15	9500			30	1F C 2.8							3.5E-03
LEAR		0614	0618	0704	N09	W15	9500	06	17.1	50	1F		4	E		120		F
SVTO		0615E	0618U	0627D	N12	W15	9500	06	17.1	12D	SF		2	E		37		
GOES		1120	1125	1135						15	C 1.8							1.3E-03
GOES		1254	1304	1334	N20	E38	9506			40	SF C 2.3							4.5E-03
RAMY		1257	1301	1314	N17	E37	9506	06	21.3	17	SF		3	E		18		F
HOLL		1257	1305	1318	N20	E38	9506	06	21.4	21	SF		3	E		31		FH
SVTO		1300	1301	1310	N21	E39	9506	06	21.5	10	SF		3	E		13		
GOES		1451	1455	1457	N19	E19	9503			6	SF C 4.2							7.3E-04
RAMY		1454	1455	1506	N17	E20	9503	06	20.1	12	SF		3	E		38		H
HOLL		1454	1455	1514	N19	E19	9503	06	20.1	20	SF		3	E		60		H
SVTO		1454	1455	1522D	N20	E18	9503	06	20.0	28D	SF		3	E		37		
HOLL		1516	1520	1525	N19	E18	9503	06	20.0	9	SF		3	E		11		
HOLL		1606	1606	1612	N19	E18	9503	06	20.0	6	SF		3	E		11		
HOLL		1616	1634	1644	N19	E18	9503	06	20.0	28	SF		3	E		25		H
HOLL		1705	1710	1717	N19	E17	9503	06	20.0	12	SF		3	E		15		
HOLL		1826	1828	1836	N19	E16	9503	06	20.0	10	SF		3	E		20		
GOES		1959	2021	2050	N18	E34	9506			51	2N M 2.0							4.0E-02
HOLL		2003	2006	2052	N18	E34	9506	06	21.4	49	2N		3	E		362		UF
HOLL		2006	2006	2010	N19	E16	9503	06	20.0	4	SF		3	E		10		
HOLL		2054	2055	2101	N20	E37	9506	06	21.7	7	2F		3	E		339		
GOES		2150	2301	2324						94	C 4.7							2.1E-02
GOES	19	1819	1826	1836	N11	W01	9504			17	SF C 2.0							1.6E-03
HOLL		1821	1822	1829	N11	W01	9504	06	19.7	8	SF		3	E		18		
GOES		2310	2326	2419	S10	W37	9501			69	SF C 4.2							1.2E-02
LEAR		2337E	2343U	2430	S10	W37	9501	06	17.2	53D	SF		2	E		42		F
GOES	20	1901	1909	1928	N08	W17	9504			27	SF C 2.3							3.0E-03
HOLL		1903	1905	1914	N08	W17	9504	06	19.5	11	SF		3	E		13		
GOES		2036	2044	2052	N15	W19	9503			16	1F C 4.4							3.3E-03
HOLL		2041	2043	2332D	N15	W19	9503	06	19.4	171D	1F		3	E		118		F
GOES		2244	2248	2251						7	C 2.1							6.9E-04
GOES		2251	2309	2324						33	C 5.7							8.9E-03
GOES	21	0109	0117	0123	N16	E09	9506			14	SF C 2.5							1.7E-03
LEAR		0112	0135	0143	N16	E09	9506	06	21.7	31	SF		3	E		18		F
GOES		0127	0132	0137	N06	W15	9504			10	SF C 2.4							1.3E-03
LEAR		0130	0133	0137	N06	W15	9504	06	19.9	7	SF		3	E		14		FH

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	(Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
GOES	21	0259	0303	0312						13	C	1.8						1.3E-03
GOES		0316	0319	0322	N06	W22	9504			6	SF	C 1.8						6.0E-04
LEAR		0318	0318	0323	N06	W22	9504	06	19.5	5	SF		3	E		25		F
GOES		0436	0446	0456	N09	W22	9504			20	SF	C 2.5						2.6E-03
LEAR		0437	0440	0450	N09	W22	9504	06	19.5	13	SF		3	E		19		
GOES		0501	0537	0609						68	C	3.1						1.0E-02
GOES		0848	0917	0939						51	C	2.5						6.4E-03
GOES		1102	1110	1122						20	C	3.5						3.5E-03
GOES		1358	1401	1404						6	C	1.4						4.3E-04
GOES		1558	1602	1607	N13	W24	9503			9	SF	C 2.3						1.1E-03
RAMY		1601	1601	1605	N13	W24	9503	06	19.8	4	SF		3	E		23		
SVTO		1601	1601	1606	N13	W24	9503	06	19.8	5	SF		3	E		32		F
HOLL		1601	1601	1607	N13	W24	9503	06	19.8	6	SF		3	E		38		F
GOES		2129	2135	2144						15	C	2.4						1.9E-03
LEAR	22	0501	0501	0504	N07	W36	9504	06	19.5	3	SF		3	E		33		
SVTO		0633	0634	0640	N19	W32	9503	06	19.8	7	SF		3	E		10		
LEAR		0852	0854	0912	N14	W40	9503	06	19.3	20	SF		3	E		30		
SVTO		0853	0854	0902	N14	W40	9503	06	19.3	9	SF		3	E		18		
GOES		0921	0929	0936	N21	W35	9503			15	SF	C 4.2						3.3E-03
SVTO		0922	0925	0941	N21	W35	9503	06	19.7	19	SF		3	E		54		FH
GOES		1422	1433	1447	S07	W40	9509			25	1F	C 4.5						5.2E-03
RAMY		1425	1429	1444	S07	W40	9509	06	19.6	19	1F		3	E		121		FH
SVTO		1719	1728	1734	S06	W43	9509	06	19.5	15	SF		3	E		23		
RAMY		1719	1728	1739	S07	W42	9509	06	19.6	20	SF		3	E		38		F
GOES		1724	1729	1734	S07	W42	9509			10	SF	C 2.6						1.4E-03
HOLL		1728E	1731	1745	S10	W40	9509	06	19.7	17D	SF		3	E		40		F
HOLL		1816	1829	1843	N10	E29	9511	06	24.9	27	SN		3	E		57		
RAMY		1816	1830	1843D	N11	E29	9511	06	24.9	27D	SN		3	E		31		
GOES		1822	1828	1832	N10	E29	9511			10	SN	C 6.0						2.1E-03
HOLL		2022	2026	2052	N09	E28	9511	06	24.9	30	SF		3	E		39		
GOES		2023	2028	2034	N09	E28	9511			11	SF	C 5.5						3.1E-03
HOLL		2114	2125	2142	N10	E27	9511	06	24.9	28	1N		3	E		111		
GOES		2117	2122	2129	N10	E27	9511			12	1N	M 1.7						9.5E-03
GOES		2214	2222	2231	N14	W47	9503			17	1N	M 6.2						3.9E-02
HOLL		2217	2218U	2319	N14	W47	9503	06	19.4	62	1N		3	E		151		F
HOLL		2319	2319	2323	N10	E26	9511	06	24.9	4	SF		3	E		20		
GOES		2357	2401	2406	N09	E25	9511			9	SF	M 1.1						4.0E-03
LEAR	23	0001	0014	0032	N09	E24	9511	06	24.8	31	1N		3	E		126		FH
GOES		0010	0015	0020	N09	E24	9511			10	1N	M 5.6						2.1E-02
GOES		0207	0213	0215	N08	E24	9511			8	SF	C 8.0						2.5E-03
LEAR		0208	0213	0217	N08	E24	9511	06	24.9	9	SF		3	E		20		F
LEAR		0302	0320	0325	N10	E23	9511	06	24.8	23	SF		3	E		16		F
LEAR		0343	0345	0356	N10	E24	9511	06	24.9	13	SF		3	E		20		F
LEAR		0401	0408	0459	N10	E23	9511	06	24.9	58	1B		3	E		248		E
GOES		0402	0408	0411	N10	E23	9511			9	1B	X 1.2						2.6E-02
SVTO		0410E	0414U	0455	N11	E23	9511	06	24.9	45D	SF		2	E		43		F
LEAR		0456	0501	0510	N14	W55	9503	06	19.0	14	SF		3	E		22		F
GOES		0504	0509	0511	N11	E23	9511			7	SF	C 6.2						2.0E-03
SVTO		0507	0508	0522	N11	E23	9511	06	24.9	15	SF		3	E		22		F
GOES		0620	0626	0634	N10	E21	9511			14	1N	M 1.3						6.3E-03
LEAR		0620	0626	0718	N10	E21	9511	06	24.8	58	1N		3	E		197		EF
SVTO		0623	0626	0700	N12	E21	9511	06	24.8	37	1F		3	E		132		F
LEAR		0800	0834	0921	N10	E20	9511	06	24.8	81	1F		3	E		100		EF
SVTO		0813	0814	0819	N11	E20	9511	06	24.8	6	SF		3	E		14		F
SVTO		0828	0834	0842	N11	E21	9511	06	24.9	14	SF		3	E		35		F
GOES		0830	0834	0836			9511			6	C	6.8						1.9E-03
LEAR		0847	0850	0900	N20	W48	9503	06	19.7	13	SF		3	E		26		
GOES		1243	1304	1306	N09	E18	9511			23	SF	C 4.0						3.9E-03
RAMY		1247	1248	1307	N09	E18	9511	06	24.9	20	SF		3	E		64		F
SVTO		1252	1301	1313D	N12	E17	9511	06	24.8	21D	SF		3	E		20		F
RAMY		1311	1315	1323	N09	E18	9511	06	24.9	12	SF		3	E		25		
HOLL		1313	1319	1321	N11	E17	9511	06	24.8	8	SF		3	E		10		
RAMY		1326	1326	1332	N09	E18	9511	06	24.9	6	SF		3	E		10		F
HOLL		1340	1340	1350	S11	W54	9509	06	19.5	10	SF		3	E		18		
RAMY		1340	1343	1347	S08	W54	9509	06	19.5	7	SF		3	E		12		
HOLL		1415	1417	1420	N10	E17	9511	06	24.9	5	SF		3	E		24		

H α SOLAR FLARES

JUNE 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
HOLL	23	1425	1431	1518	N10	E18	9511	06	24.9	53	SF		3	E		84		FH
GOES		1425	1433	1446	N09	E17	9511			21	SF	C 7.0						6.8E-03
SVTO		1428	1432	1458	N12	E16	9511			30	SF		3	E		72		F
RAMY		1428	1434	1450	N09	E17	9511			22	SF		3	E		46		F
HOLL		1455	1456	1458	S05	E48				3	SF		3	E		21		F
HOLL		1456	1456	1502	N19	W51	9503			6	SF		3	E		12		E
SVTO		1457	1459	1502	N21	W49	9503			5	SF		3	E		15		
HOLL		1532	1533	1538	N18	W33	9505			6	SF		3	E		14		F
HOLL		1639	1639	1645	N11	E19	9511			6	SF		3	E		22		
RAMY		1653	1653	1659	N09	E16	9511			6	SF		3	E		14		
HOLL		1653	1655	1710	N10	E15	9511			17	SF		3	E		26		F
SVTO		1654	1655	1702	N10	E15	9511			8	SF		3	E		12		F
RAMY		1658	1700	1710	N21	W51	9503			12	SF		3	E		78		
HOLL		1659	1700	1709	N18	W52	9503			10	SF		3	E		67		H
HOLL		1712	1728	1748	N10	E15	9511			36	SF		3	E		65		
GOES		1722	1728	1738	N10	E15	9511			16	SF	C 3.6						3.1E-03
RAMY		1724	1726	1736	N09	E16	9511			12	SF		3	E		29		F
RAMY		1801	1802	1806	N16	W61	9503			5	SF		3	E		18		
GOES		1956	1959	2005	N11	E13	9511			9	SF	C 2.2						1.1E-03
HOLL		1957	2001	2012	N11	E13	9511			15	SF		3	E		42		
GOES	24	0310	0314	0317	N10	E13	9511			7	SF	C 2.9						9.0E-04
LEAR		0313	0314	0319	N10	E13	9511			6	SF		2	E		31		FH
GOES		0446	0455	0501						15		C 6.1						3.6E-03
GOES		0632	0635	0637	N10	E11	9511			5	SF	C 3.9						9.6E-04
LEAR		0634	0635	0640	N10	E11	9511			6	SF		3	E		31		
GOES		0722	0729	0735	N18	W35	9506			13	SF	C 3.1						2.1E-03
LEAR		0723	0724	0733	N18	W35	9506			10	SF		3	E		15		
RAMY		1211	1211	1216	N17	W71	9507			5	SF		3	E		13		
GOES		1429	1432	1434						5		C 2.0						5.1E-04
GOES		1524	1532	1541	N13	W64	9503			17	SF	C 2.3						2.1E-03
HOLL		1528	1528	1538	N13	W64	9503			10	SF		3	E		20		
GOES		2237	2242	2302						25		C 2.2						2.9E-03
GOES	25	0024	0027	0030	N17	W75	9503			6	SF	C 3.1						8.2E-04
LEAR		0026	0027	0032	N17	W75	9503			6	SF		3	E		32		
GOES		0103	0120	0129						26		C 1.9						2.5E-03
GOES		0242	0250	0319						37		C 1.6						3.3E-03
GOES		0413	0418	0426						13		C 2.7						1.9E-03
GOES		0439	0441	0445						6		C 2.1						7.3E-04
LEAR		0802	0803	0808	N18	W50	9506			6	SF		3	E		16		
LEAR		0816	0817	0826	N18	W53	9506			10	SF		3	E		14		
GOES		0853	0901	0905	S15	W49				12	SF	C 1.6						9.5E-04
LEAR		0856		0908	S15	W49				12	SF		2	E		28		
GOES		1214	1219	1223	S13	W54				9	SF	C 1.9						8.6E-04
RAMY		1218	1219	1225	S13	W54				7	SF		3	E		17		
RAMY		1230	1234	1239	N20	W80	9503			9	1F		3	E		204		H
HOLL		1449	1449	1453	S15	W53				4	SF		3	E		16		
GOES		2306	2323	2350						44		C 3.5						8.0E-03
LEAR	26	0441	0442	0444	N16	W84	9503			3	SF		3	E		27		
GOES		0525	0537	0543	N24	E33	9513			18	SF	C 1.2						1.2E-03
LEAR		0536	0539	0542	N24	E33	9513			6	SF		3	E		13		F
LEAR		0613	0615	0618	N15	W85	9503			5	SF		3	E		35		
LEAR		0905	0905	0911	N17	E21	9514			6	SF		3	E		17		
SVTO		0905	0907	0911	N18	E22	9514			6	SF		3	E		16		H
GOES		1059	1100	1103	N18	E20	9514			4	SF	C 1.2						2.9E-04
SVTO		1100	1100	1105	N18	E20	9514			5	SF		3	E		22		H
GOES		1150	1312	1402						132		C 7.1						4.1E-02
RAMY		1435	1437	1446	N18	E25	9513			11	SF		3	E		23		
SVTO		1436	1438	1444	N19	E26	9513			8	SF		3	E		23		F
HOLL	27	0114	0116	0125	S48	E58				11	SF		3	E		19		
GOES		0151	0158	0203						12		C 2.1						1.3E-03
SVTO		0348	0350	0405	S20	W41	9512			17	SF		1	E		32		
GOES		0348	0354	0407	S20	W41	9512			19	SF	C 1.5						1.7E-03
LEAR		0350	0351	0407	S20	W41	9512			17	SF		3	E		21		
LEAR		0709	0711	0719	S48	E50	9518			10	SF		3	E		13		

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H α SOLAR FLARES

JUNE 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF		CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
							Region									Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
LEAR	27	0733	0743	0804	S48	E52	9518		07	1.7	31	SF		3	E		54		
GOES		0737	0743	0749	S48	E52	9518				12	SF C 1.8							1.1E-03
LEAR		0823	0823	0831	S49	E54	9518		07	1.9	8	SF		3	E		15		
LEAR		0846	0848	0902	S47	E49	9518		07	1.5	16	SF		3	E		33		
GOES		1016	1034	1039							23	C 1.6							1.7E-03
RAMY		1250	1254	1258	S22	W45	9512		06	24.1	8	SF		3	E		10		F
GOES		2018	2021	2024							6	C 1.8							6.0E-04
GOES		2246	2250	2255	S21	W48	9512				9	SF C 2.2							1.0E-03
HOLL		2247	2247	2303	S21	W48	9512		06	24.3	16	SF		3	E		81		F
HOLL		2309	2309	2316	S21	W49	9512		06	24.2	7	SF		3	E		14		
GOES		2356	2401	2406	N12	W42	9511				10	SF C 1.8							8.0E-04
HOLL		2359		2411	N13	W42	9511		06	24.8	12	SF		3	E		27		
LEAR	28	0003	0004	0012	N12	W42	9511		06	24.8	9	SF		3	E		18		F
GOES		0314	0345	0401	S21	W52	9512				47	SF C 1.5							2.9E-03
LEAR		0331	0343	0405	S21	W52	9512		06	24.1	34	SF		3	E		57		F
GOES		2000	2004	2014	S28	W62	9512				14	SF B 7.7							5.6E-04
RAMY		2003	2003	2009	S28	W62	9512		06	24.0	6	SF		3	E		16		
GOES		2017	2022	2030	N02	W52	9511				13	SF C 1.0							7.0E-04
RAMY		2023	2024	2038	N02	W52	9511		06	25.0	15	SF		3	E		14		H
GOES		2058	2106	2112	N01	W52	9511				14	SF B 8.9							6.3E-04
RAMY		2104	2106	2110	N01	W52	9511		06	25.0	6	SF		3	E		16		F
GOES	29	0104	0110	0118							14	C 1.5							9.4E-04
GOES		0301	0305	0312							11	B 7.0							3.9E-04
GOES		0511	0521	0538							27	C 1.4							1.7E-03
GOES		0920	0932	0934							14	C 1.0							5.9E-04
GOES		1504	1550	1719	S50	E39	9523				135	SF B 9.5							6.4E-03
HOLL		1600	1601	1603	S50	E39			07	3.0	3	SF		3	E		14		
GOES		2346	2349	2353							7	B 7.3							2.7E-04
GOES	30	0102	0110	0112							10	B 5.7							2.7E-04
GOES		0612	0714	0731							79	B 8.7							2.9E-03

"Remarks"

A = Eruptive prominence whose base is less than 90 degrees from central meridian.
 B = Probably the end of a more important flare.
 C = Invisible 10 minutes before.
 D = Brilliant point.
 E = Two or more brilliant points.
 F = Several eruptive centers.
 G = No visible spots in the neighborhood.
 H = Flare accompanied by high-speed dark filament.
 I = Active region very extended.
 J = Distinct variations of plage intensity before or after the flare.
 K = Several intensity maxima.
 L = Existing filaments show signs of sudden activity.
 M = White-light flare.
 N = Continuous spectrum shows effects of polarization.

O = Observations have been made in the H and K lines of Ca II.
 P = Flare shows Helium D3 in emission.
 Q = Flare shows Balmer continuum in emission.
 R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
 S = Brightness follows disappearance of filament in same position.
 T = Region active all day.
 U = Two bright branches, parallel or converging.
 V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide H-alpha line.
 Y = System of loop-type prominences.
 Z = Major sunspot umbra covered by flare.

Observation Type: C=Cinematographic, E=Electronic, P=Photographic, V=Visual

NOTE: Beginning July 1997, the times of all GOES X-ray events are now included in this table.

S O L A R R A D I O E M I S S I O N

Selected Fixed Frequency Events

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JUNE 2001

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22	Mean W/m 2 Hz)		
03	2695 PALE	8 S	2101.0	2101.0	U	49.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	2101.0	2101.0	U	48.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	2118.0	2119.0	1.0	94.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	2118.0	2118.0	5.0	110.0			QL=4 ST=2 TYP=3
04	2695 LEAR	8 S	0807.0	0808.0	2.0	210.0			QL=4 ST=2 TYP=3
	8800 LEAR	4 S/F	0807.0	0808.0	3.0	160.0			QL=4 ST=2 TYP=3
05	2695 LEAR	49 GB	0444.0	0446.0	5.0	1000.0			QL=4 ST=2 TYP=6
	2695 PALE	49 GB	0444.0	0446.0	4.0	650.0			QL=4 ST=2 TYP=6
	8800 SVTO	4 S/F	0444.0	0445.0	4.0	260.0			QL=4 ST=2 TYP=3
	2695 SVTO	49 GB	0444.0	0446.0	5.0	900.0			QL=4 ST=2 TYP=6
	8800 LEAR	4 S/F	0445.0	0445.0	3.0	270.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	0445.0	0446.0	2.0	260.0			QL=4 ST=2 TYP=3
06	8800 PALE	4 S/F	2314.0	2314.0	5.0	75.0			QL=4 ST=2 TYP=3
08	2695 LEAR	8 S	0223.0	0224.0	1.0	25.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0227.0	0227.0	U	22.0			QL=4 ST=2 TYP=3
10	8800 LEAR	4 S/F	0101.0	0102.0	12.0	54.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1153.0	1154.0	1.0	24.0			QL=4 ST=2 TYP=3
	2695 SVTO	8 S	1154.0	1156.0	2.0	37.0			QL=2 ST=2 TYP=3
12	2695 LEAR	8 S	0713.0	0714.0	2.0	62.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	0713.0	0714.0	2.0	27.0			QL=4 ST=2 TYP=3
	2695 SVTO	8 S	0713.0	0714.0	2.0	63.0			QL=4 ST=2 TYP=3
13	8800 LEAR	4 S/F	0425.0	0431.0	14.0	180.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	0425.0	0431.0	11.0	150.0			QL=4 ST=2 TYP=3
	2695 SVTO	4 S/F	0427.0	0431.0	9.0	80.0			QL=4 ST=2 TYP=3
	2695 LEAR	4 S/F	0427.0	0431.0	10.0	85.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	0431.0	0431.0	2.0	140.0			QL=2 ST=2 TYP=3
	2695 LEAR	8 S	0827.0	0827.0	U	22.0			QL=4 ST=2 TYP=3
	2695 SVTO	4 S/F	1134.0	1137.0	8.0	120.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	1134.0	1139.0	8.0	430.0			QL=4 ST=2 TYP=3
	2695 SGMR	48 C	1135.0	1137.0	15.0	110.0			QL=4 ST=2 TYP=8
	8800 SGMR	49 GB	1135.0	1139.0	21.0	500.0			QL=4 ST=2 TYP=6
	8800 SVTO	4 S/F	1155.0	1156.0	8.0	310.0			QL=4 ST=2 TYP=3
	2695 SVTO	4 S/F	1155.0	1204.0	10.0	110.0			QL=4 ST=2 TYP=3
	8800 SGMR	20 GRF	1156.0	1156.0	20.0	380.0			QL=4 ST=2 TYP=2
	2695 SGMR	48 C	1156.0	1204.0	20.0	100.0			QL=4 ST=2 TYP=8
	2695 SGMR	4 S/F	1624.0	1627.0	8.0	51.0			QL=4 ST=2 TYP=3
	2695 SVTO	4 S/F	1624.0	1627.0	4.0	67.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1955.0	1955.0	U	41.0			QL=4 ST=2 TYP=3
14	8800 SVTO	4 S/F	0936.0	0938.0	3.0	43.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1700.0	1700.0	U	34.0			QL=4 ST=3 TYP=3
	2695 SVTO	8 S	1701.0	1702.0	1.0	35.0			QL=4 ST=2 TYP=3
15	2695 SGMR	48 C	1005.0	1011.0	18.0	130.0			QL=4 ST=2 TYP=8
	8800 SVTO	48 C	1005.0	1007.0	37.0	150.0			QL=4 ST=2 TYP=8
	2695 SVTO	48 C	1005.0	1011.0	31.0	130.0			QL=4 ST=2 TYP=8
	8800 SGMR	4 S/F	1006.0	1007.0	8.0	150.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	1034.0	1035.0	4.0	64.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	1047.0	1049.0	33.0	260.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	1048.0	1049.0	32.0	100.0			QL=4 ST=2 TYP=3
	2695 SVTO	20 GRF	1537.0	1544.0	18.0	49.0			QL=4 ST=2 TYP=2
	2695 SGMR	20 GRF	1539.0	1546.0	19.0	39.0			QL=4 ST=2 TYP=2
	8800 PALE	48 C	2216.0	2220.0	6.0	86.0			QL=4 ST=2 TYP=8
	2695 PALE	8 S	2217.0	2217.0	1.0	33.0			QL=4 ST=2 TYP=3
	8800 SGMR	48 C	2217.0	2220.0	9.0	72.0			QL=4 ST=2 TYP=8
	2695 SGMR	4 S/F	2219.0	2220.0	7.0	41.0			QL=4 ST=2 TYP=3
16	2695 PALE	4 S/F	2235.0	2237.0	3.0	49.0			QL=4 ST=2 TYP=3
17	8800 PALE	8 S	2229.0	2229.0	1.0	77.0			QL=4 ST=2 TYP=3
18	2695 PALE	4 S/F	2002.0	2003.0	5.0	72.0			QL=4 ST=2 TYP=3

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S O L A R R A D I O E M I S S I O N

Selected Fixed Frequency Events

JUNE 2001

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22	Mean W/m 2 Hz)		
18	2695 SGMR	8 S	2003.0	2004.0	1.0	46.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	2003.0	2003.0	U	34.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2005.0	2008.0	4.0	35.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	2020.0	2020.0	8.0	33.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	2020.0	2021.0	1.0	5.0			QL=4 ST=2 TYP=3
22	8800 SGMR	8 S	1825.0	1825.0	2.0	39.0			QL=4 ST=3 TYP=3
	2695 SGMR	48 C	2215.0	2217.0	22.0	110.0			QL=4 ST=2 TYP=8
	2695 PALE	4 S/F	2216.0	2217.0	4.0	120.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2216.0	2219.0	18.0	200.0			QL=4 ST=2 TYP=3
	8800 SGMR	46 C	2223.0	2224.0	14.0	28.0			QL=4 ST=2 TYP=8
23	8800 SVTO	4 S/F	0405.0	0407.0	4.0	110.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0407.0	0407.0	1.0	92.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	0407.0	0407.0	5.0	74.0			QL=4 ST=3 TYP=3
	2695 SVTO	8 S	0407.0	0407.0	1.0	45.0			QL=4 ST=2 TYP=3
24	2695 LEAR	8 S	0313.0	0313.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0313.0	0313.0	1.0	230.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	0313.0	0313.0	1.0	73.0			QL=4 ST=2 TYP=3
	2695 LEAR	4 S/F	0447.0	0449.0	6.0	23.0			QL=4 ST=2 TYP=3
	8800 LEAR	4 S/F	0447.0	0451.0	4.0	19.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

LEAR = Learmonth

PALE = Palehua

SGMR = Sagamore Hill

SVTO = San Vito

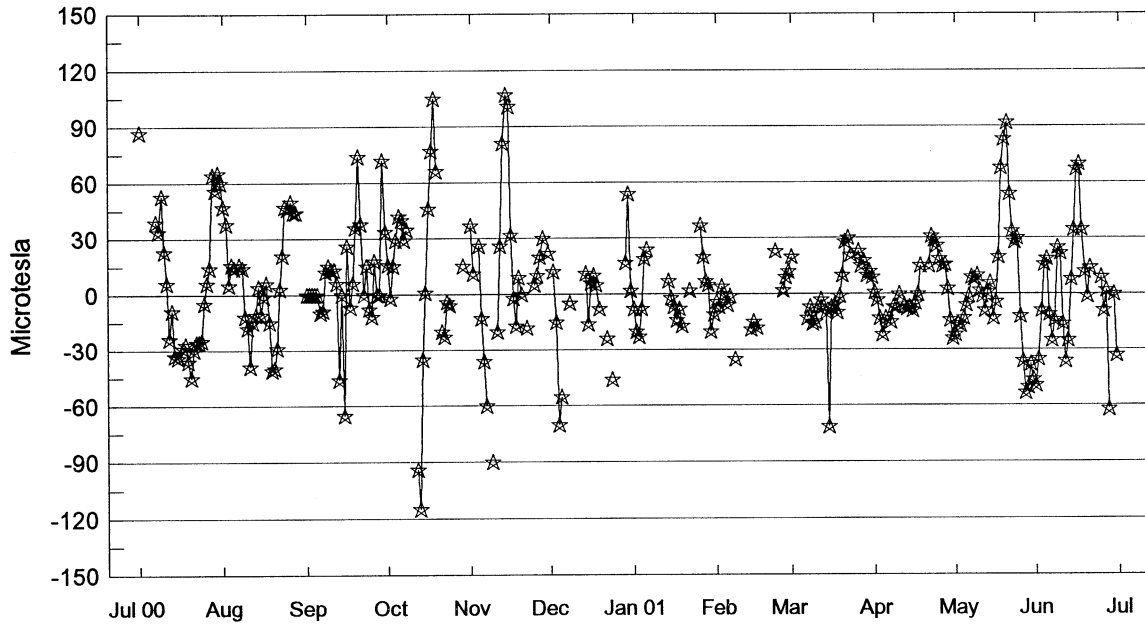
Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F	
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF	
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A	
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A	

RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500 and 200 MHz.

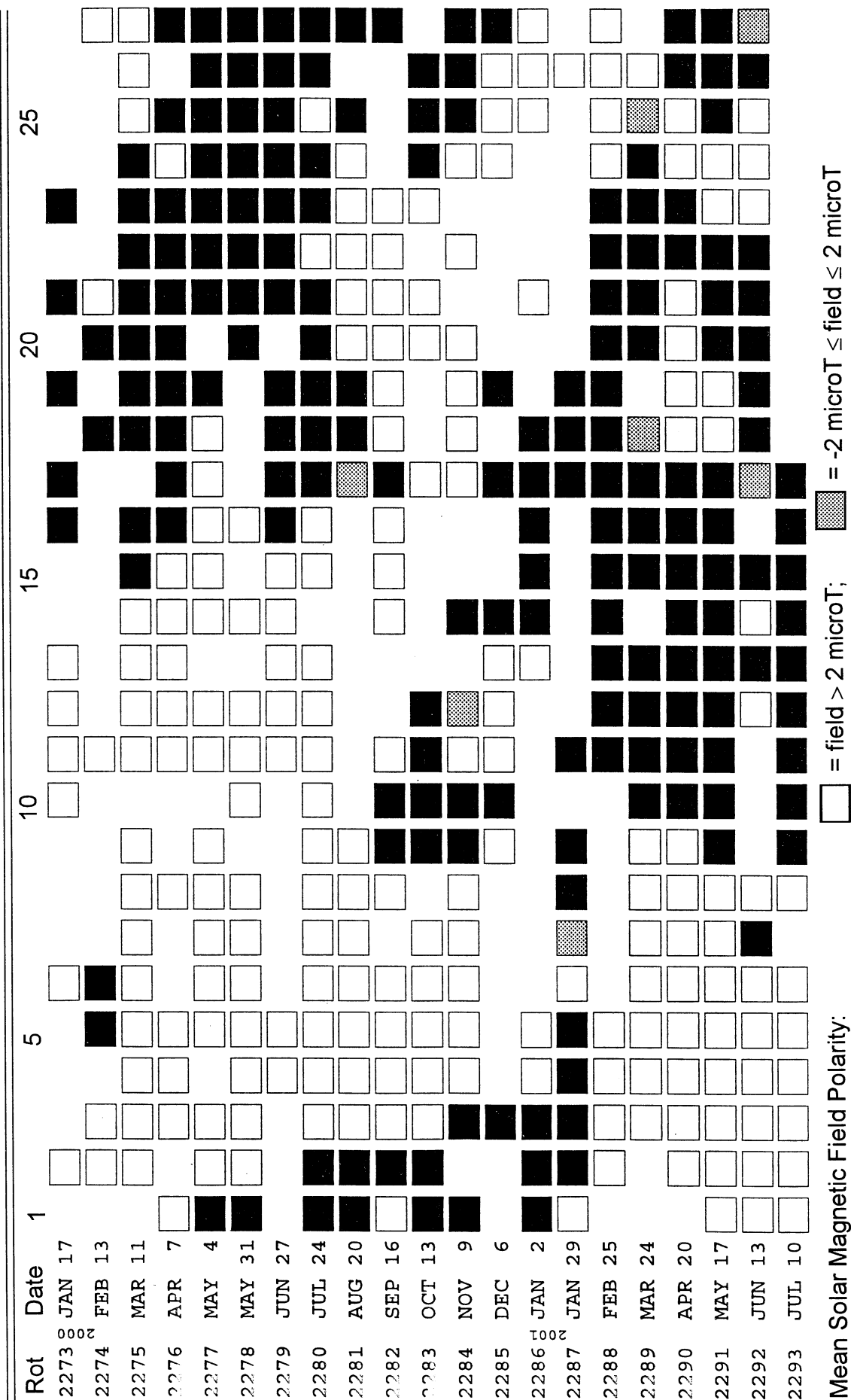
Stanford Mean Solar Magnetic Field (Microtesla) "Sun-As-A-Star"

41
Jun 01



Day	Jul 00	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar	Apr	May	Jun
1	87	47	---	16	37	---	-8	-4	20	1	-22	-35
2	---	38	---	-2	11	12	-20	-7	---	-3	-16	-9
3	---	5	---	15	---	-15	-23	4	---	-13	-17	16
4	---	16	---	29	26	-70	-8	0	---	-22	-13	19
5	---	14	0	42	-13	-55	19	-6	---	-13	-6	-11
6	---	---	-10	40	-36	---	24	-1	---	---	-1	-25
7	39	16	-9	29	-60	---	---	---	-13	-15	9	-14
8	34	14	12	35	---	-5	---	-35	-7	-7	8	25
9	53	-12	15	---	-90	---	---	---	-16	-7	10	22
10	23	-18	13	---	---	---	---	---	-15	0	2	-16
11	6	-39	13	---	-20	---	---	---	-7	---	-1	-36
12	-24	-15	6	-94	26	---	---	---	-3	-6	-9	-25
13	-9	-11	-46	-115	81	---	---	---	-7	-8	1	8
14	-33	4	---	-35	107	11	7	-19	-10	-7	6	35
15	-34	-11	-65	1	101	-16	-2	-15	-71	-9	-13	67
16	---	-1	26	46	32	6	-7	-18	-7	-5	-4	70
17	-29	6	-7	77	-2	10	-14	---	-6	0	20	35
18	-27	-15	6	105	-17	5	-8	---	-10	15	68	12
19	-36	-41	36	66	9	-8	-17	---	-1	---	83	-1
20	-45	-40	74	---	0	---	---	---	10	---	92	14
21	-30	-29	38	-20	---	---	---	---	28	15	54	---
22	-26	3	---	-23	-18	-24	2	---	30	31	34	---
23	-26	21	15	-4	---	---	---	23	21	29	28	---
24	-25	47	-8	-6	---	-46	---	---	---	26	30	9
25	-5	46	-12	---	5	---	---	---	---	19	-12	-9
26	6	50	18	---	10	---	37	2	23	15	-36	2
27	14	44	---	---	20	---	20	9	15	16	-53	-62
28	64	44	---	---	30	---	7	12	18	3	-50	---
29	56	---	72	15	---	17	5	---	10	-14	-38	0
30	65	---	34	---	22	54	-20	---	12	-24	-46	-33
31	60	---	---	---	---	2	-11	---	9	---	-49	---

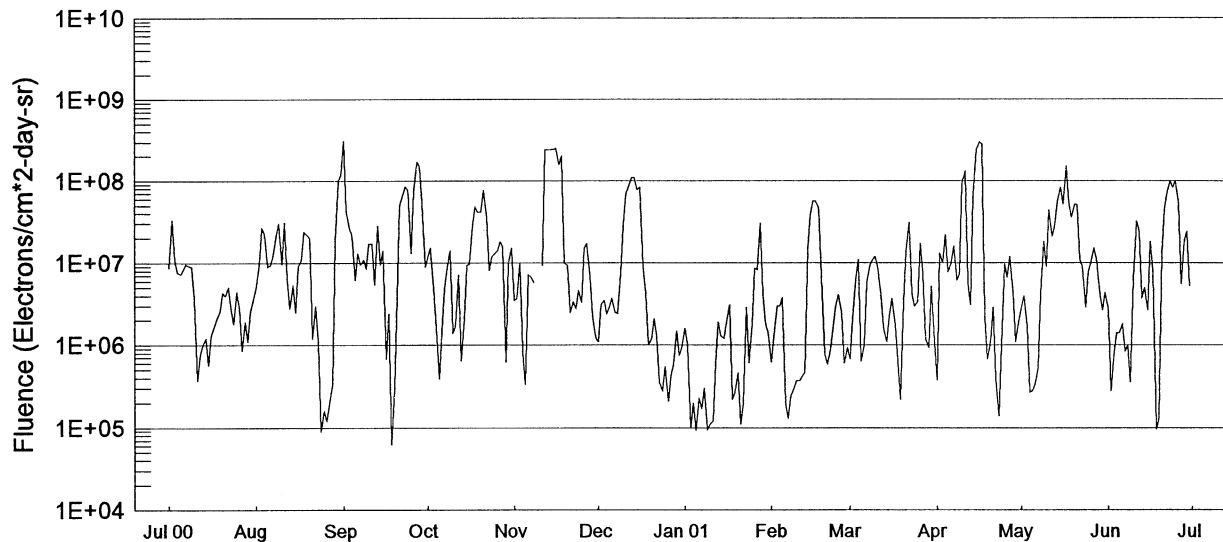
STANFORD MEAN SOLAR MAGNETIC FIELD



Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

GOES Daily Electron Fluence Jul 2000 - Jun 2001

43
Jun 01



Day	Jul 00	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar	Apr	May	Jun
1	8.7E+06	5.0E+06	3.1E+08	1.2E+07	3.5E+06	1.1E+06	1.6E+06	6.2E+05	6.8E+05	3.8E+05	2.9E+06	2.8E+06
2	3.3E+07	9.5E+06	4.3E+07	1.5E+07	3.7E+06	3.1E+06	1.0E+06	1.3E+06	2.1E+06	1.3E+07	4.0E+06	2.8E+05
3	1.1E+07	2.7E+07	2.7E+07	4.8E+06	1.0E+07	3.5E+06	1.0E+05	3.0E+06	6.4E+06	1.0E+07	1.7E+06	8.1E+05
4	7.7E+06	2.3E+07	2.2E+07	1.6E+06	8.3E+05	2.4E+06	2.0E+05	3.0E+06	1.1E+07	2.2E+07	2.7E+05	1.4E+06
5	7.3E+06	9.0E+06	6.2E+06	3.9E+05	3.3E+05	2.9E+06	9.2E+04	3.8E+06	6.3E+05	7.8E+06	2.8E+05	1.4E+06
6	8.3E+06	9.4E+06	1.3E+07	1.5E+06	7.1E+06	3.7E+06	2.3E+05	1.9E+05	1.0E+06	9.8E+06	3.3E+05	1.8E+06
7	9.6E+06	1.2E+07	9.5E+06	4.8E+06	6.8E+06	2.5E+06	1.7E+05	1.3E+05	5.8E+06	1.6E+07	5.3E+05	8.4E+05
8	9.2E+06	2.1E+07	1.1E+07	9.5E+06	5.8E+06	2.4E+06	3.0E+05	2.4E+05	9.3E+06	6.2E+06	4.2E+06	1.0E+06
9	9.1E+06	3.0E+07	8.6E+06	1.4E+07	-999	7.6E+06	9.3E+04	3.0E+05	1.1E+07	7.4E+06	1.8E+07	3.6E+05
10	3.7E+06	9.7E+06	1.7E+07	1.4E+06	-999	2.8E+07	1.1E+05	3.7E+05	1.2E+07	9.5E+07	9.0E+06	6.5E+06
11	3.7E+05	3.1E+07	1.7E+07	1.7E+06	9.4E+06	6.9E+07	1.2E+05	3.7E+05	9.1E+06	1.3E+08	4.4E+07	3.2E+07
12	7.4E+05	6.3E+06	5.5E+06	7.1E+06	2.4E+08	8.9E+07	6.1E+05	4.2E+05	4.2E+06	5.6E+06	2.1E+07	2.5E+07
13	1.0E+06	2.8E+06	2.8E+07	6.4E+05	2.4E+08	1.1E+08	1.9E+06	4.7E+05	1.6E+06	3.1E+06	2.8E+07	3.8E+06
14	1.2E+06	5.4E+06	9.5E+06	2.1E+06	2.4E+08	1.1E+08	1.3E+06	1.5E+07	1.1E+06	6.5E+07	5.5E+07	5.0E+06
15	5.7E+05	2.5E+06	1.4E+07	9.4E+06	2.4E+08	7.8E+07	1.2E+06	3.9E+07	2.3E+06	2.4E+08	8.4E+07	2.7E+06
16	1.3E+06	9.1E+06	6.8E+05	9.7E+06	2.5E+08	8.3E+07	1.9E+06	5.7E+07	3.7E+06	3.0E+08	5.2E+07	1.8E+07
17	1.7E+06	1.1E+07	2.4E+06	2.9E+07	1.6E+08	8.9E+06	3.1E+06	5.6E+07	1.8E+06	2.8E+08	1.5E+08	7.9E+06
18	2.1E+06	2.4E+07	6.2E+04	4.8E+07	2.0E+08	4.3E+06	2.2E+05	4.7E+07	6.5E+05	2.2E+06	5.4E+07	9.5E+04
19	2.6E+06	2.2E+07	3.0E+05	4.2E+07	1.0E+07	1.0E+06	2.7E+05	6.8E+06	2.2E+05	6.8E+05	3.6E+07	1.3E+05
20	4.3E+06	2.0E+07	3.9E+06	4.2E+07	9.4E+06	1.2E+06	4.6E+05	7.7E+05	3.4E+06	1.1E+06	5.2E+07	1.3E+07
21	4.0E+06	1.2E+06	5.0E+07	7.6E+07	2.5E+06	2.1E+06	1.1E+05	5.9E+05	1.4E+07	2.9E+06	5.1E+07	4.5E+07
22	5.0E+06	3.0E+06	6.7E+07	3.7E+07	3.4E+06	1.3E+06	2.0E+05	8.2E+05	3.1E+07	3.9E+05	1.1E+07	7.2E+07
23	2.8E+06	1.1E+06	8.6E+07	8.1E+06	2.8E+06	3.5E+05	2.9E+06	1.7E+06	4.2E+06	1.4E+05	9.1E+06	1.0E+08
24	1.8E+06	8.9E+04	7.6E+07	1.2E+07	4.6E+06	2.8E+05	6.1E+05	3.1E+06	3.0E+06	1.0E+06	2.9E+06	8.4E+07
25	4.4E+06	1.6E+05	1.3E+07	1.3E+07	3.3E+06	5.5E+05	1.8E+06	4.1E+06	3.4E+06	9.6E+06	7.5E+06	1.0E+08
26	2.9E+06	1.2E+05	7.6E+07	1.4E+07	1.5E+07	2.1E+05	8.6E+06	2.5E+06	1.7E+07	6.6E+06	1.1E+07	5.4E+07
27	8.6E+05	2.2E+05	1.7E+08	1.8E+07	1.7E+07	4.3E+05	8.2E+06	6.0E+05	7.6E+06	1.2E+07	1.5E+07	5.6E+06
28	1.9E+06	3.3E+05	1.5E+08	1.6E+07	7.0E+06	5.8E+05	3.0E+07	9.3E+05	1.2E+06	4.5E+06	1.1E+07	1.9E+07
29	1.1E+06	1.8E+07	5.4E+07	6.2E+05	2.2E+06	1.5E+06	4.2E+06		9.4E+05	1.1E+06	4.2E+06	2.4E+07
30	2.6E+06	1.0E+08	9.0E+06	1.0E+07	1.2E+06	7.5E+05	1.8E+06		5.2E+06	1.8E+06	2.7E+06	5.2E+06
31	3.7E+06	1.2E+08		1.5E+07		9.3E+05	1.4E+06		1.1E+06		4.3E+06	

NOTE: The electron detector responds significantly to protons above 32 MeV; therefore, electron data are contaminated when a proton event is in progress. These days are indicated with '-999' in the table and are not plotted. '-' indicates data not available.

NOTE: GOES9 data began April, 1996 and ended on 26 July, 1998. GOES8 is primary satellite as of 27 July, 1998.

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Number 683 Part I

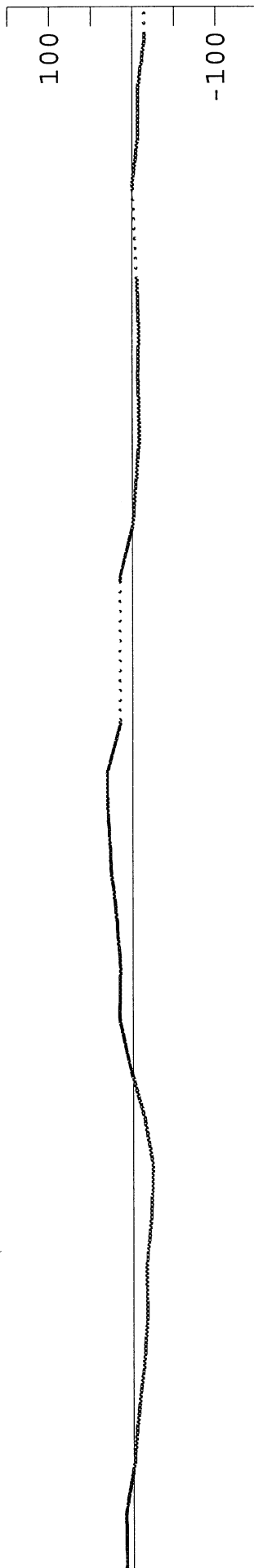
DATA FOR MAY 2001

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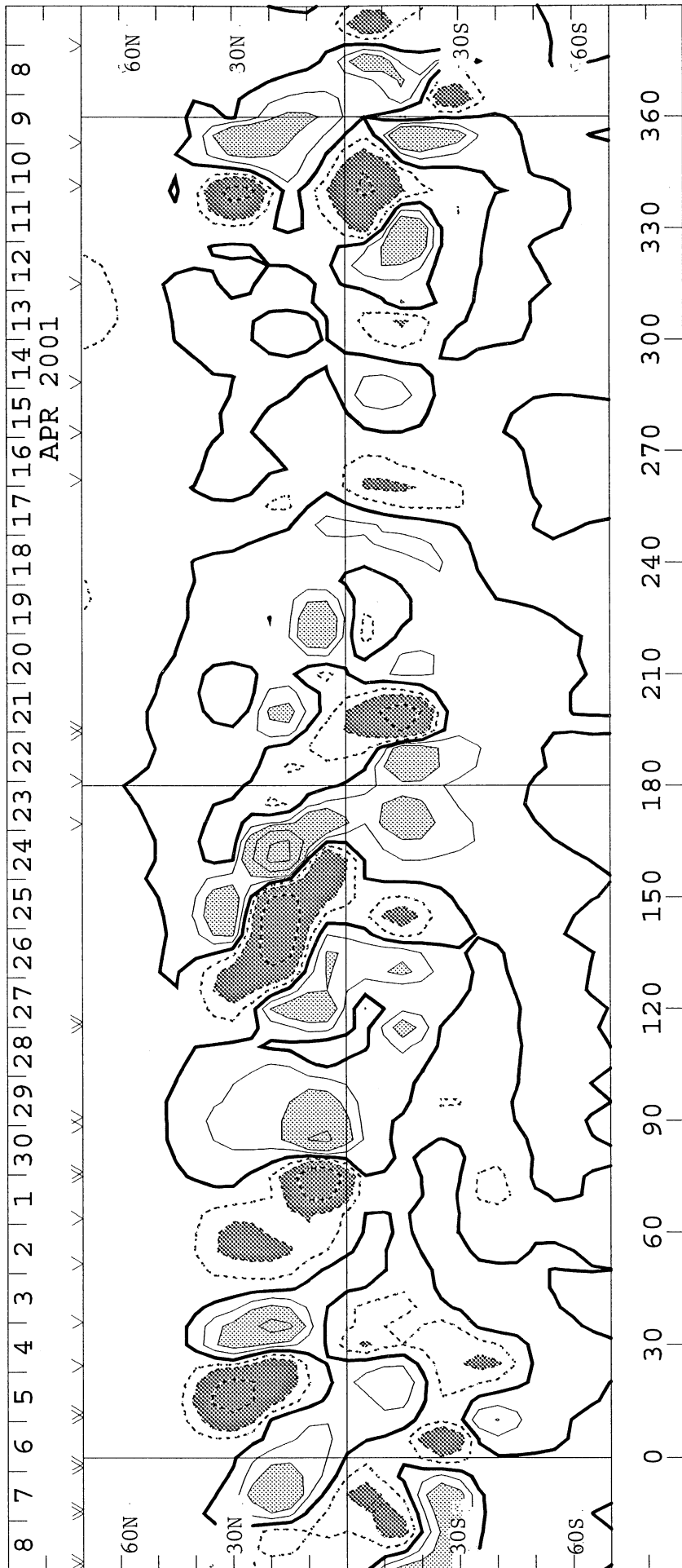
SOLAR MAGNETIC FIELD SYNOPTIC CHART
CARRINGTON ROTATION NUMBER 1975
(9 April to 6 May 2001)

WILCOX SOLAR OBSERVATORY

Mean Field



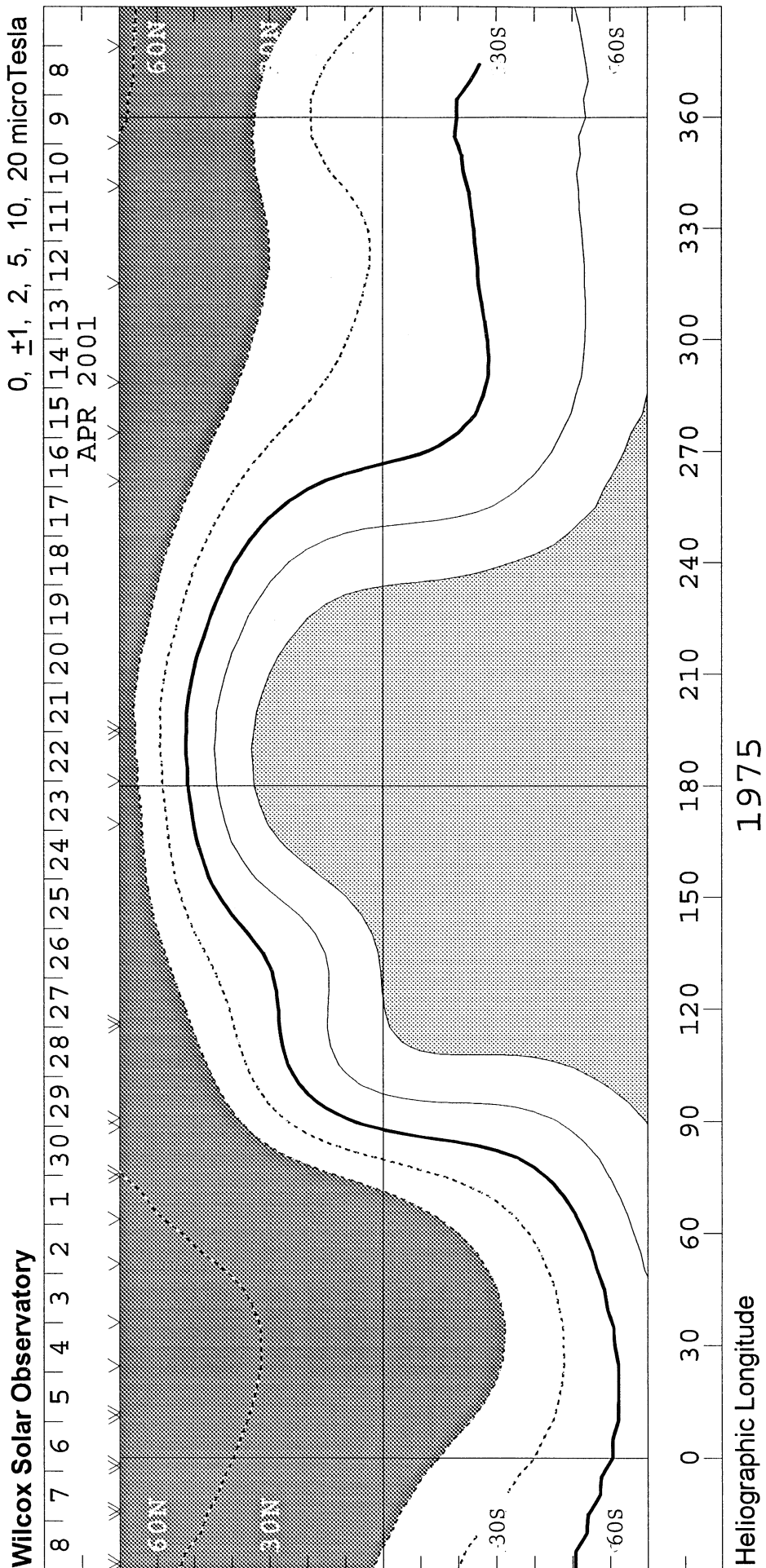
WSO - Photospheric Magnetic Field 0, +100, 200, 500, 1000, 2000 MicroTesla



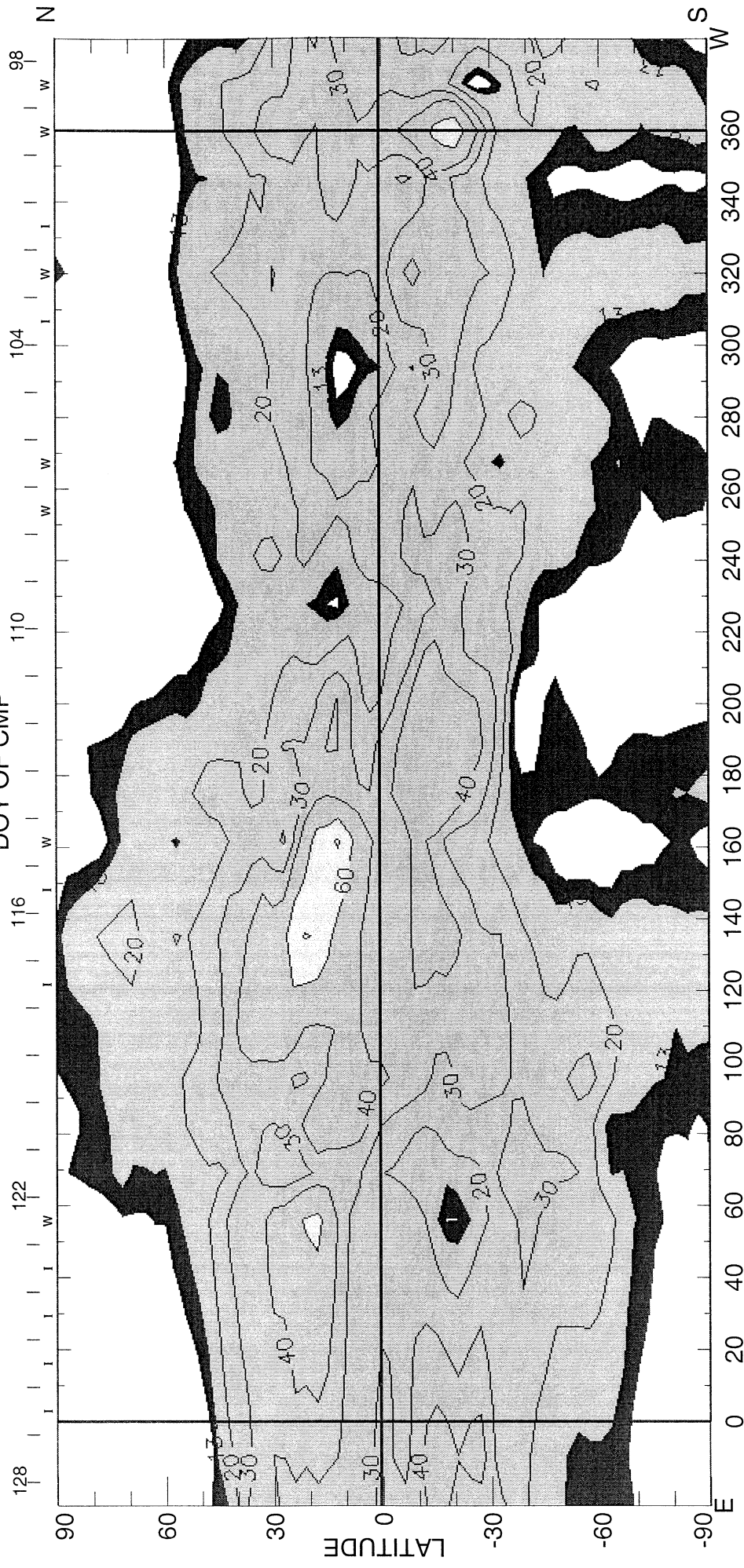
Heliographic Longitude

1975

SOLAR MAGNETIC FIELD SYNOPTIC CHART **SOURCE SURFACE FIELD** CARRINGTON ROTATION NUMBER 1975 (9 April to 6 May 2001)

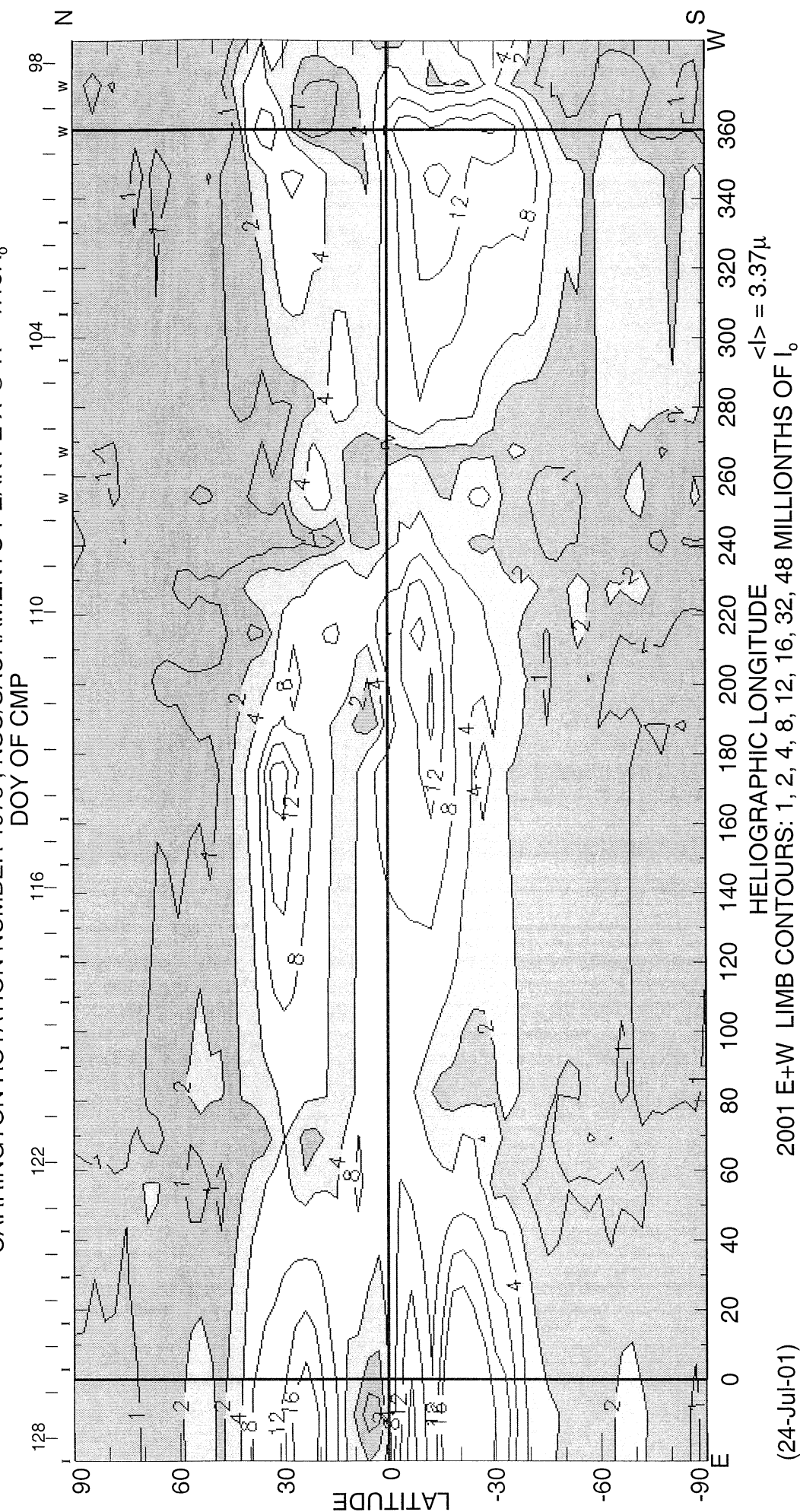


CARRINGTON ROTATION NUMBER 1975 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o
DOY OF CMP

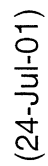


(20-Jul-01) 2001 E+W LIMB CONTOURS: 10, 13, 20, 30, 40, 60, 80, 100, 120, 140, 160 MILLIONTHS OF I_o <I> = 19.94μ
CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

CARRINGTON ROTATION NUMBER 1975 ; NSO/SACRAMENTO PEAK FE X @ $R = 1.15R_{\odot}$



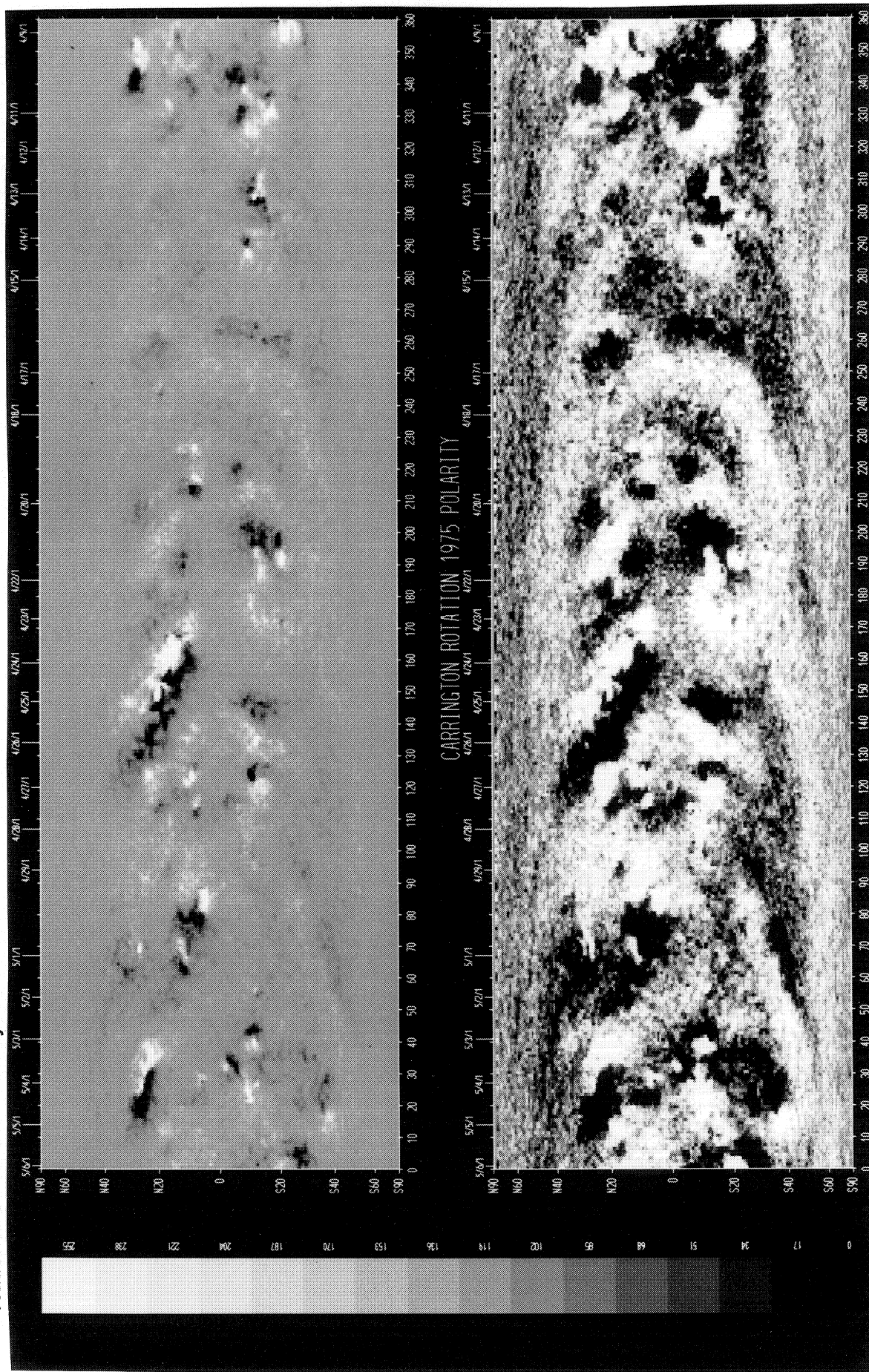
(24-Jul-01)



SOLAR MAGNETIC FIELD SYNOPSIS CHART **CARRINGTON ROTATION NUMBER 1975** (9 April to 6 May 2001)

National Solar Observatory/Kitt Peak

Dates of Observation

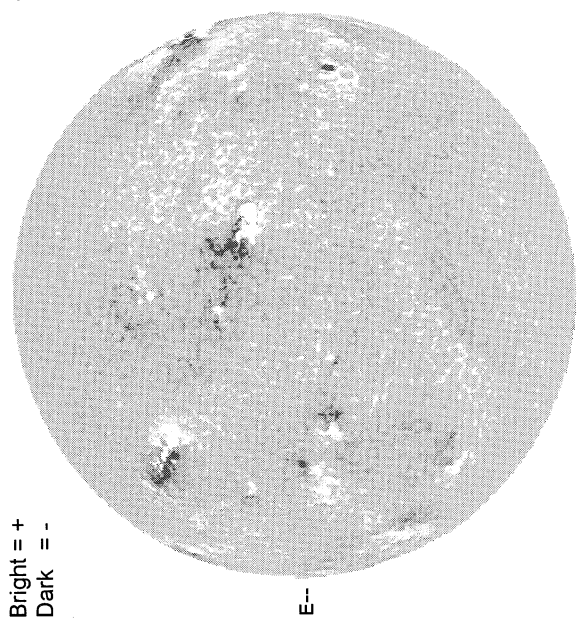


Heliographic Longitude

MAY 1, 2001 (P = -24.14, Bo = -4.16, Lo = 75.59)

KITT PEAK MAGNETOGRAM

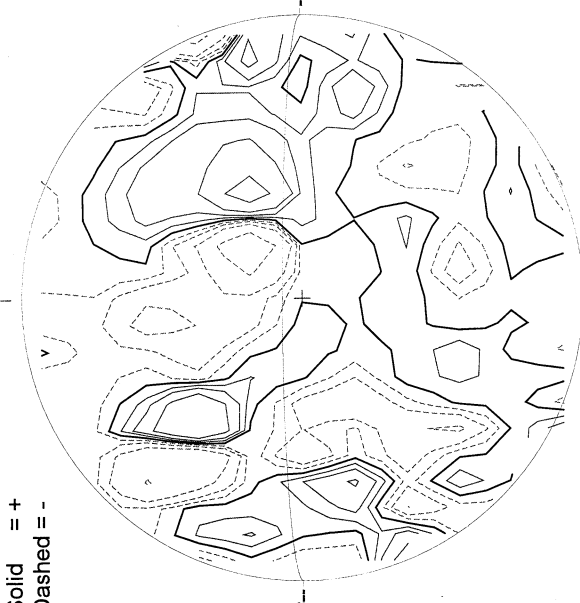
868.8 nm



Bright = +
Dark = -

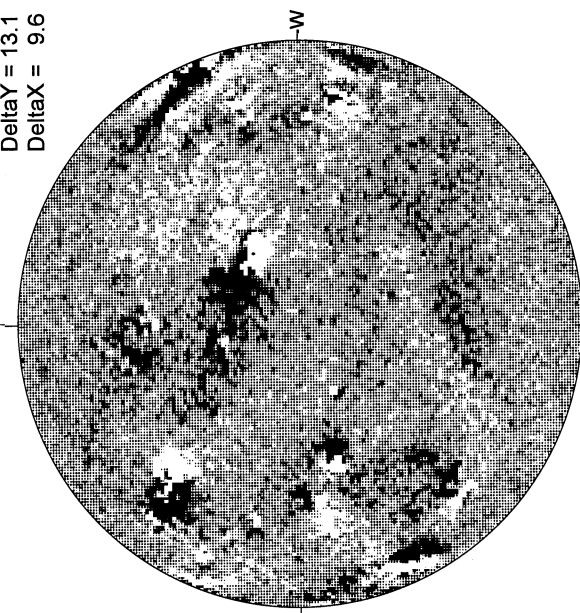
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

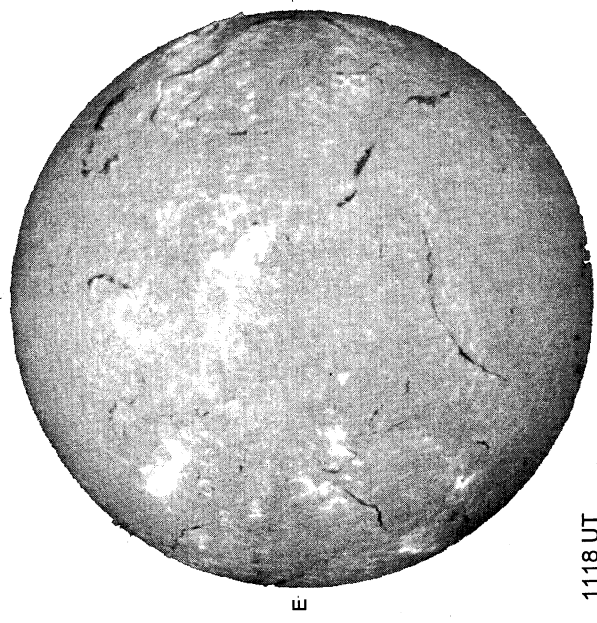
Delta Y = 13.1
Delta X = 9.6



White = +7.5G
Black = -7.5G

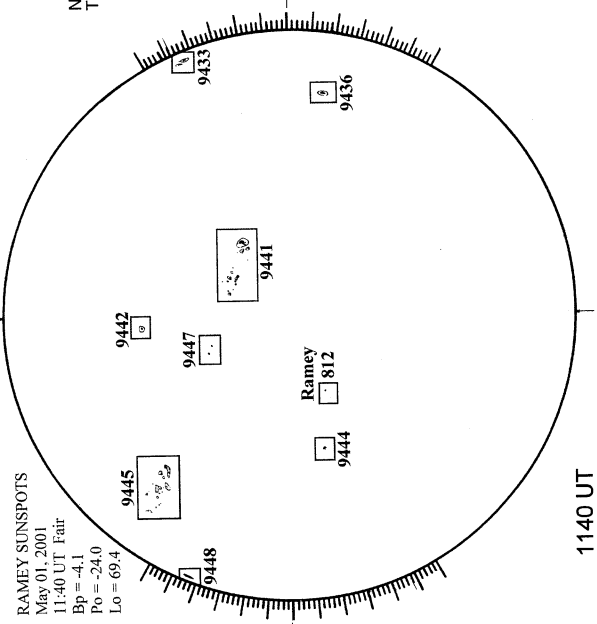
15.96 -
16.89 UT

MEUDON H-ALPHA



1608 UT

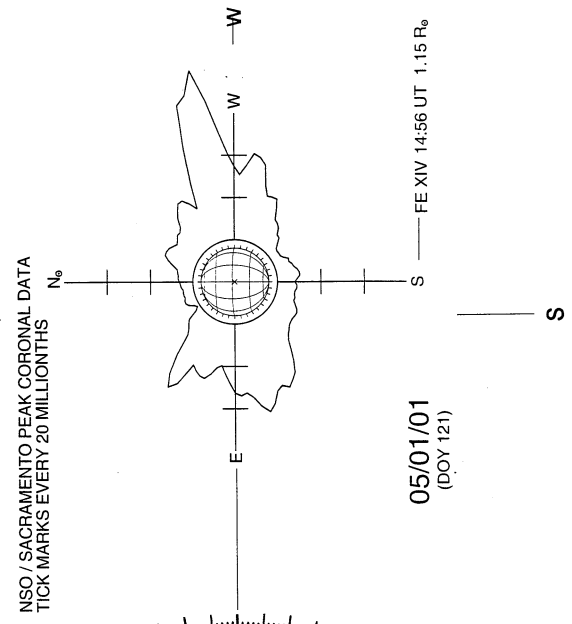
RAMEY SUNSPOT



RAMEY SUNSPOTS
May 01, 2001
11:40 UT Fair
Bp = -4.1
Po = -24.0
Lo = 69.4

1140 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

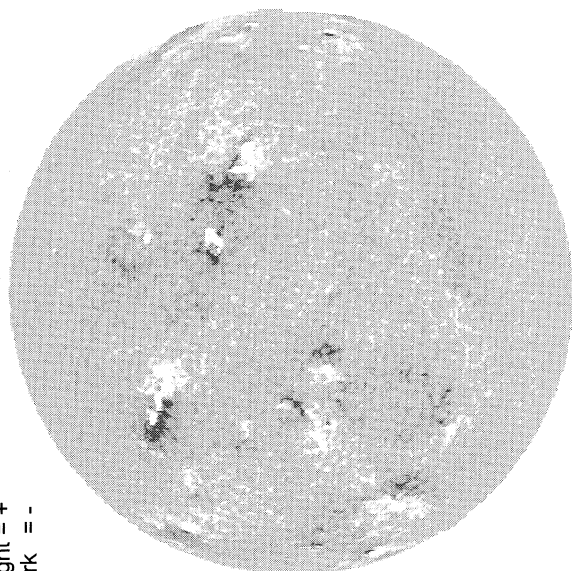


MAY 2, 2001 (P = -23.96, Bo = -4.06, Lo = 62.38)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

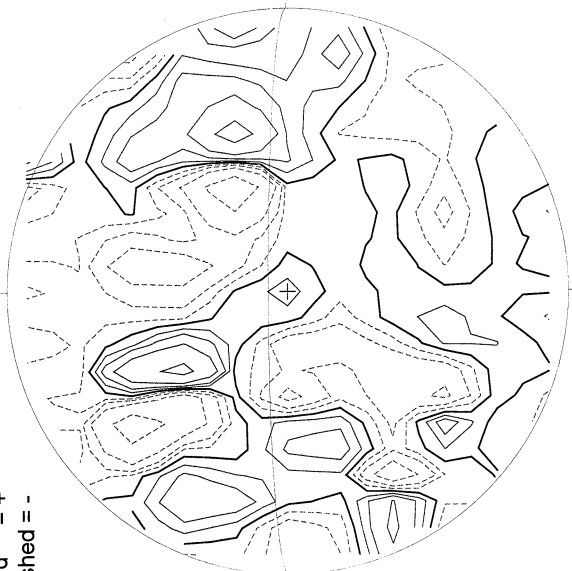
868.8 nm



1605 UT

STANFORD MAGNETOGRAM

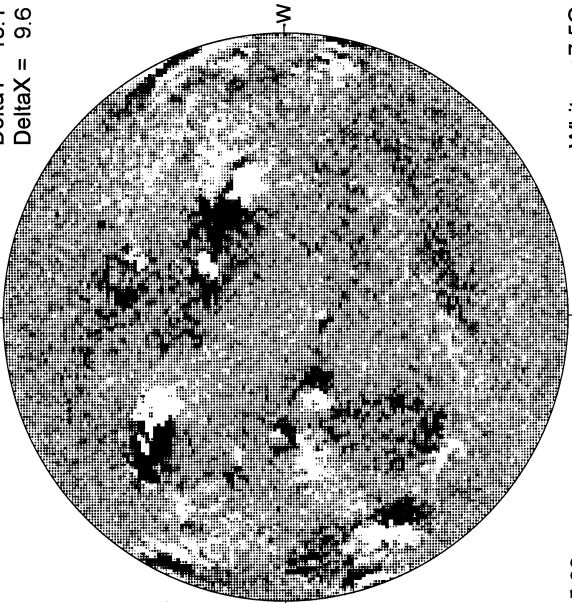
Solid = +
Dashed = -



1917 UT

MT. WILSON MAGNETOGRAM

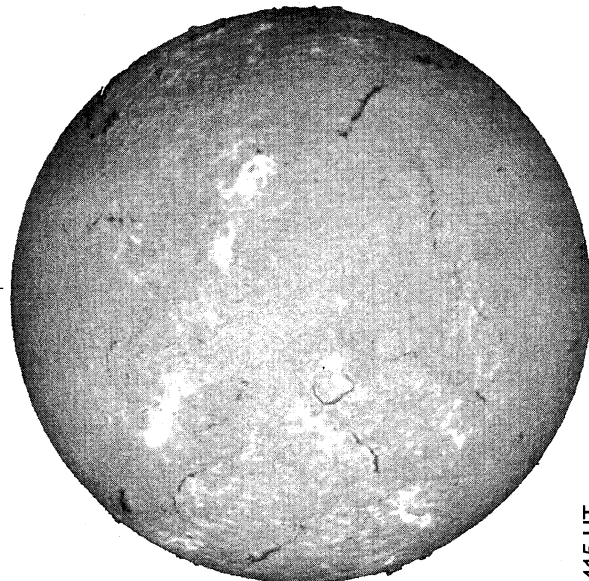
Delta Y = 13.1
Delta X = 9.6



15.99 -
16.93 UT

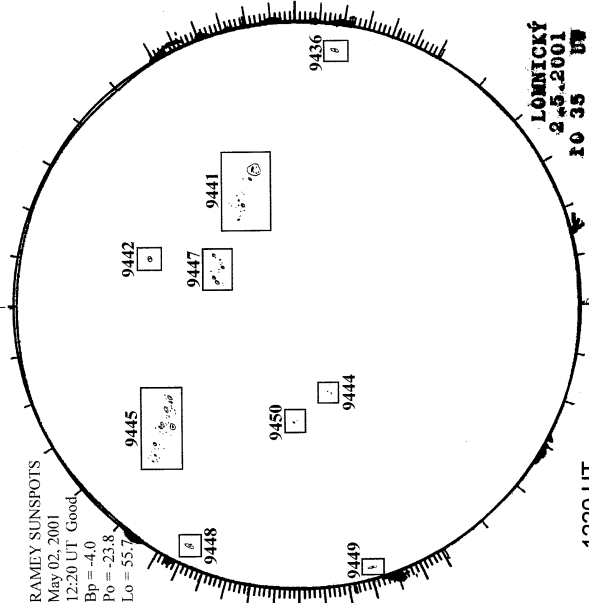
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



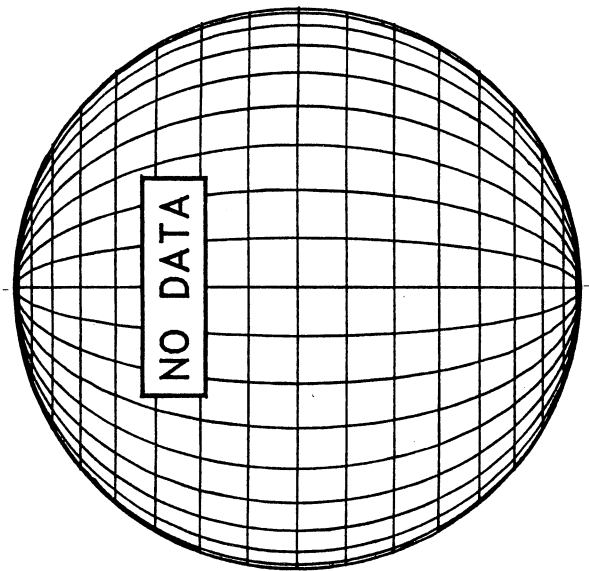
1415 UT

RAMEY SUNSPOT



1220 UT
1035 UT LOMN Prom S

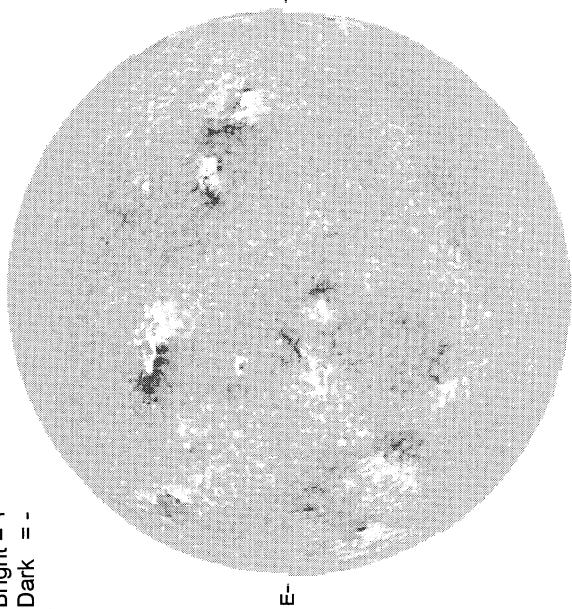
LOMNICKY PEAK CORONA (1.04 Radii)----



MAY 3, 2001 (P = -23.77, Bo = -3.96, Lo = 49.16)

KITT PEAK MAGNETOGRAM
868.8 nm

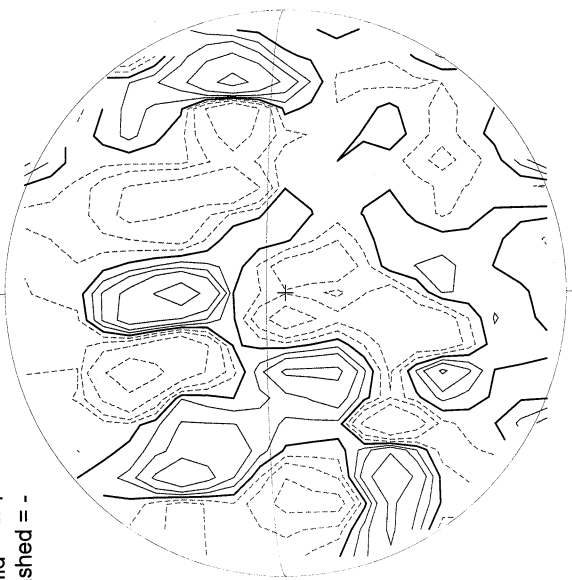
Bright = +
Dark = -



1531 UT

STANFORD MAGNETOGRAM

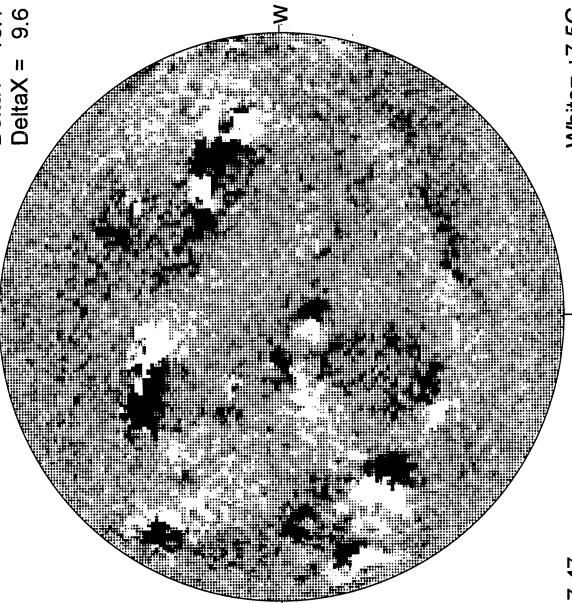
Solid = +
Dashed = -



2336 UT

MT. WILSON MAGNETOGRAM

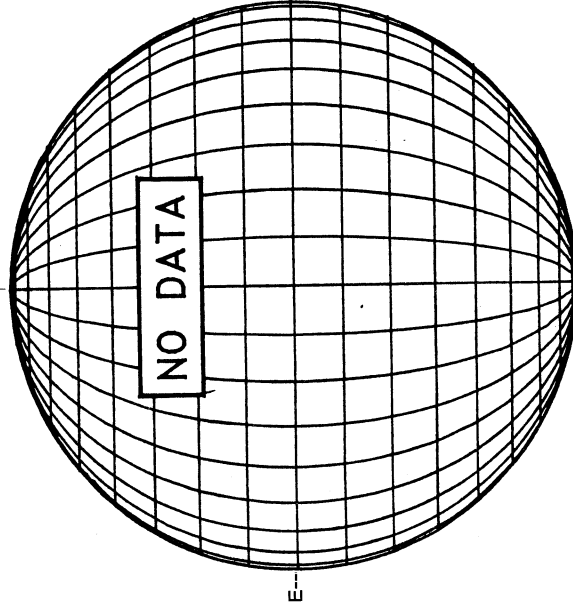
DeltaY = 13.1
DeltaX = 9.6



17.47 -
18.40 UT

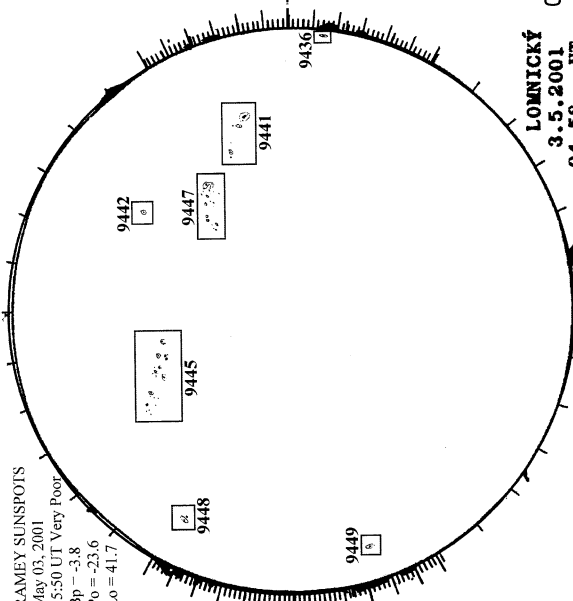
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

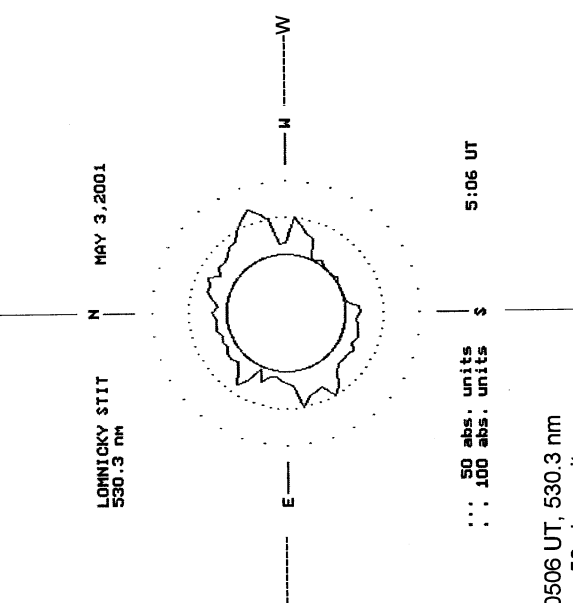


NO DATA

RAMEY SUNSPOT



LOMNICKY PEAK CORONA (1.04 Radii)----



... 50 abs. units
... 100 abs. units

0506 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

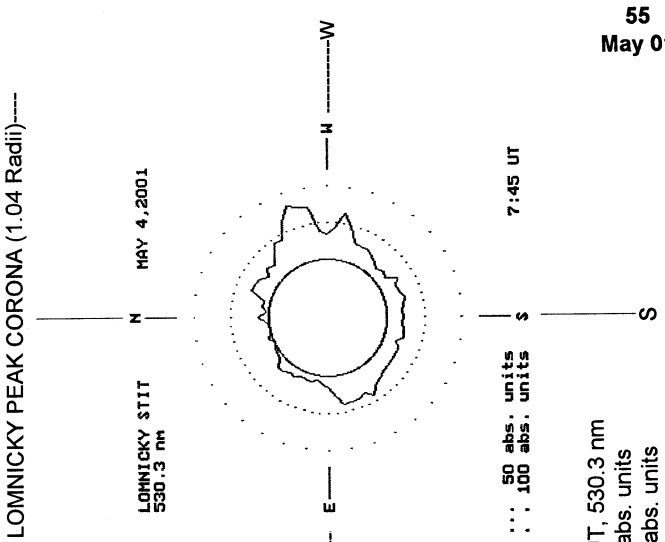
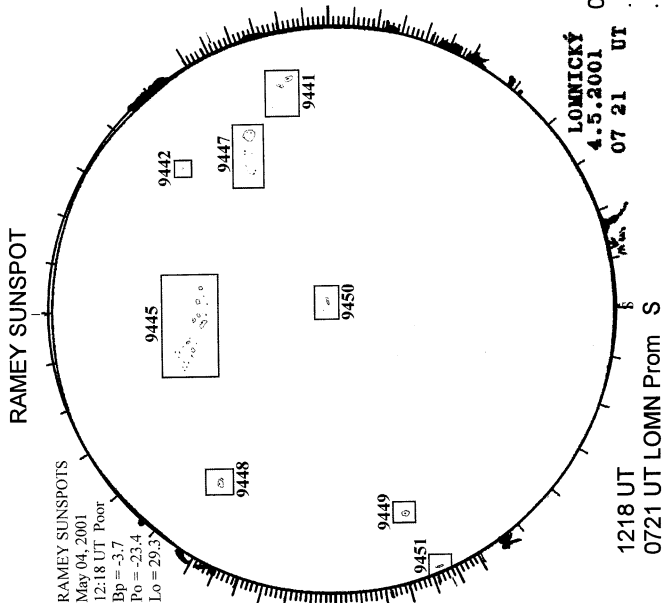
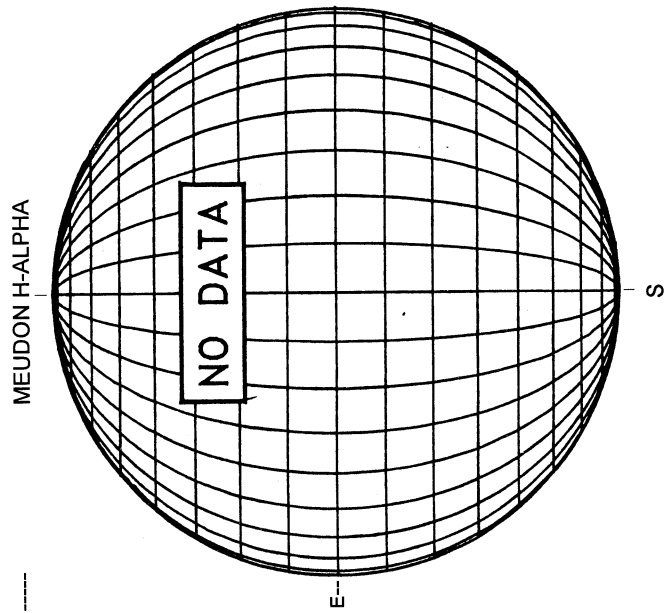
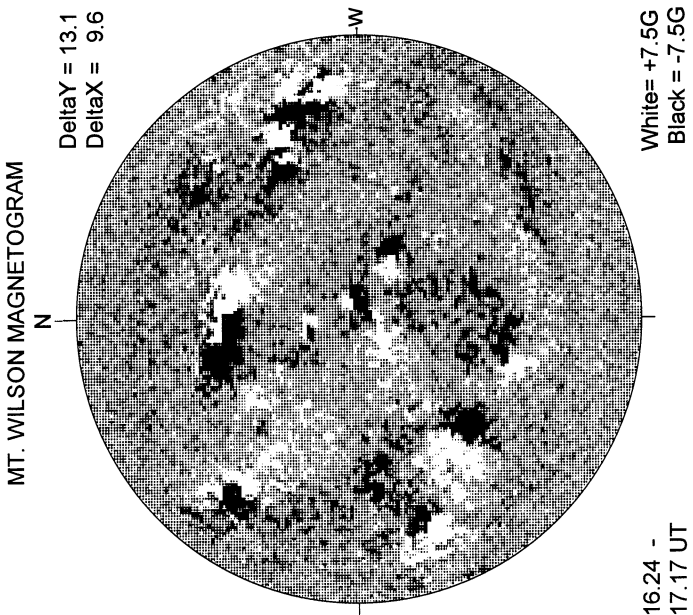
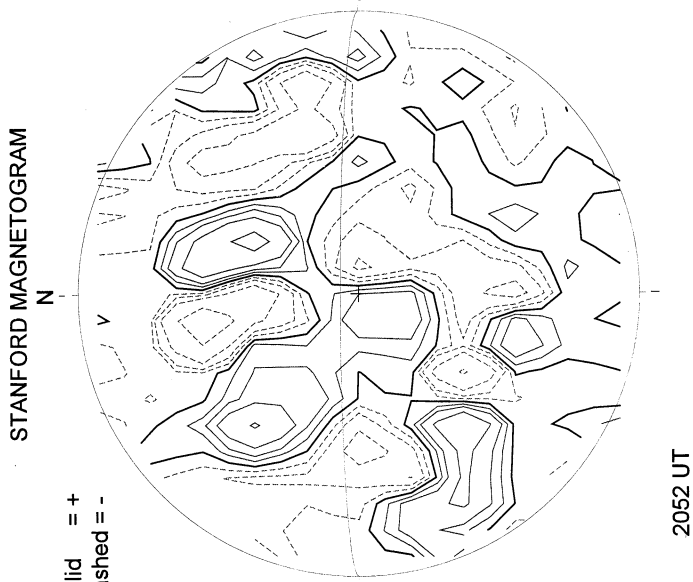
5:06 UT

RAMEY SUNSPOTS
May 03, 2001
15:50 UT Very Poor
Bp = -3.8
Po = -23.6
Lo = 41.7

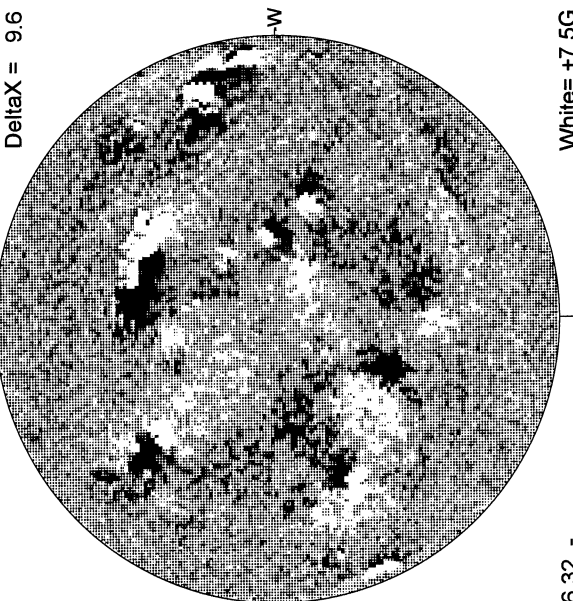
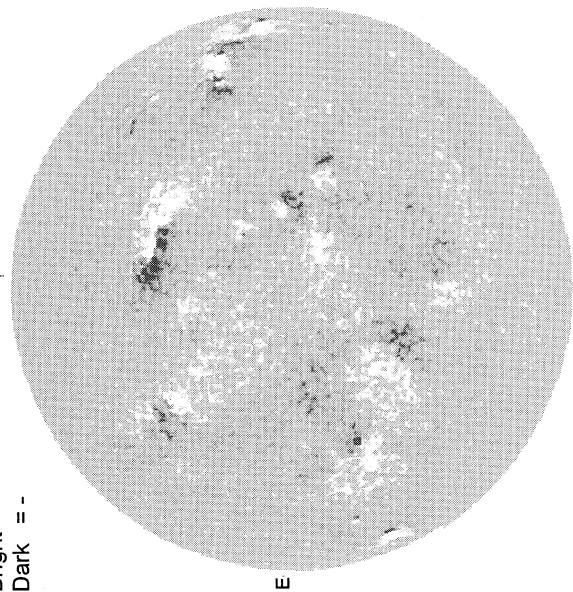
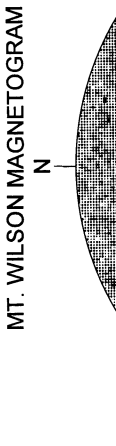
LOMNICKY
3.5.2001
04 58 UT

1550 UT
0458 UT LOMN Prom S

MAY 4, 2001 (P= -23.58, Bo = -3.85, Lo = 35.94)



MAY 5, 2001 (P= -23.37, Bo = -3.75, Lo = 22.72)



16.32 -
17.25 UT

White= +7.5G
Black = -7.5G

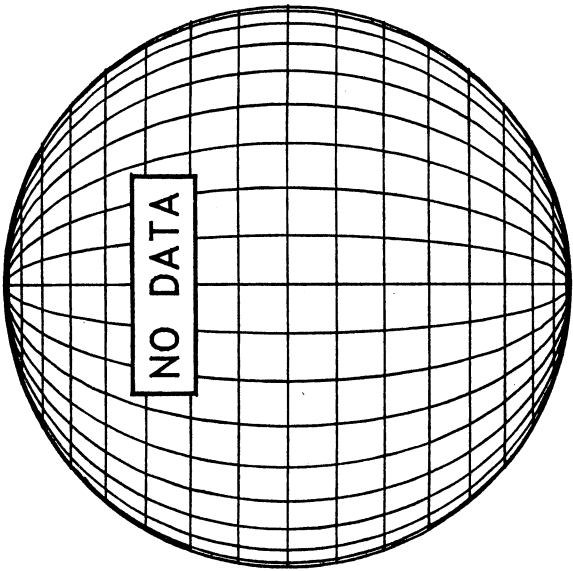
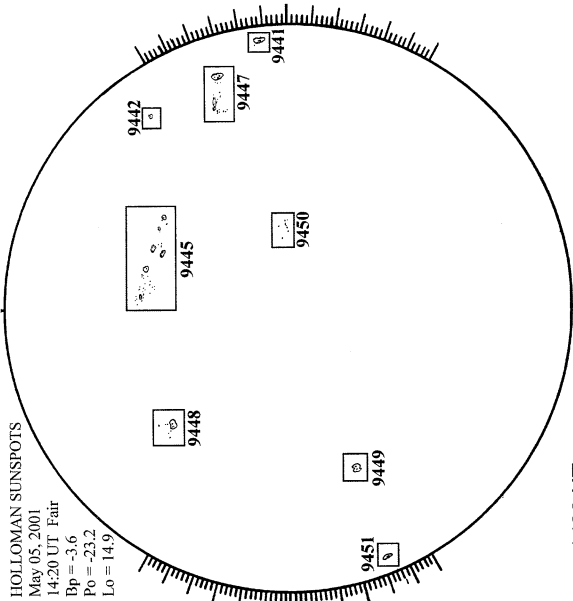
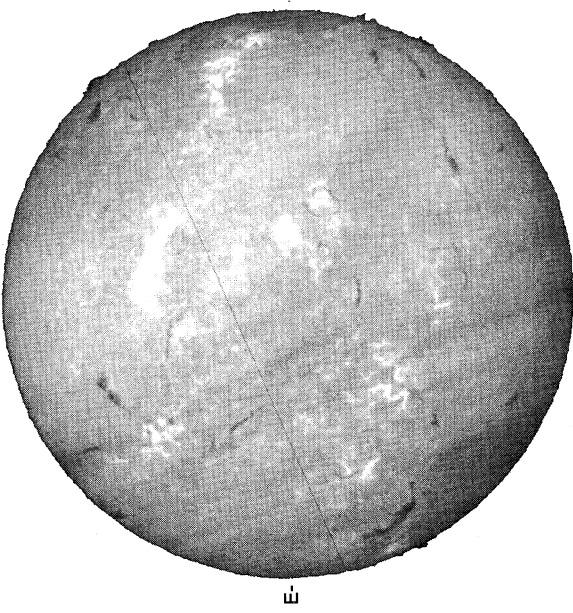
1522 UT

1935 UT

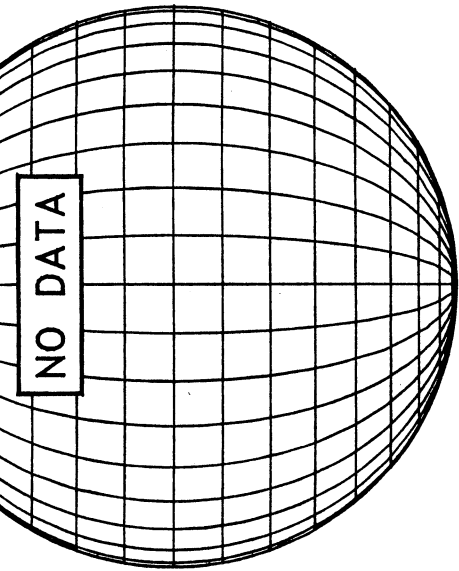
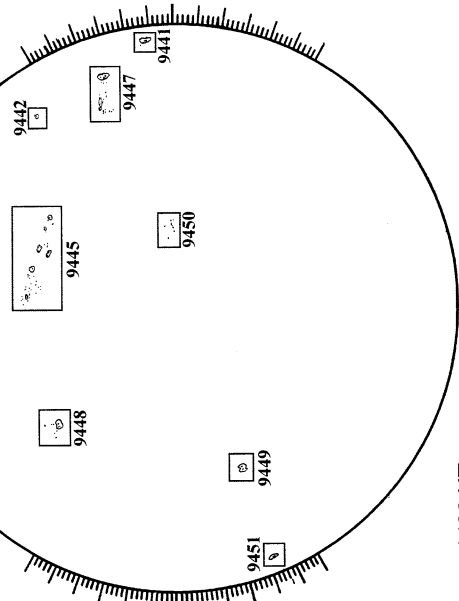
MEUDON H-ALPHA

HOLLOMAN SUNSPOTS

SACRAMENTO PEAK CORONA (1.15 Radii)----



HOLLOMAN SUNSPOTS
May 05, 2001
14:20 UT Fair
Bp = -3.6
Po = 23.2
Lo = 14.9



NO DATA

0858 UT

1420 UT

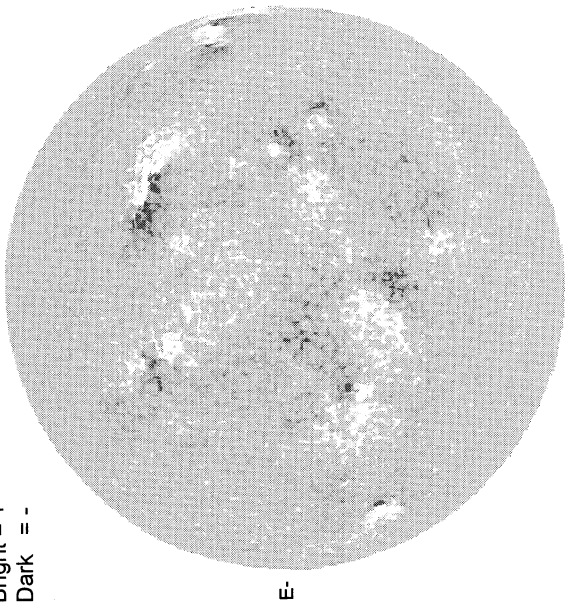
S

MAY 6, 2001 (P = -23.16, B0 = -3.64, L0 = 9.50)

KITT PEAK MAGNETOGRAM

868.8 nm

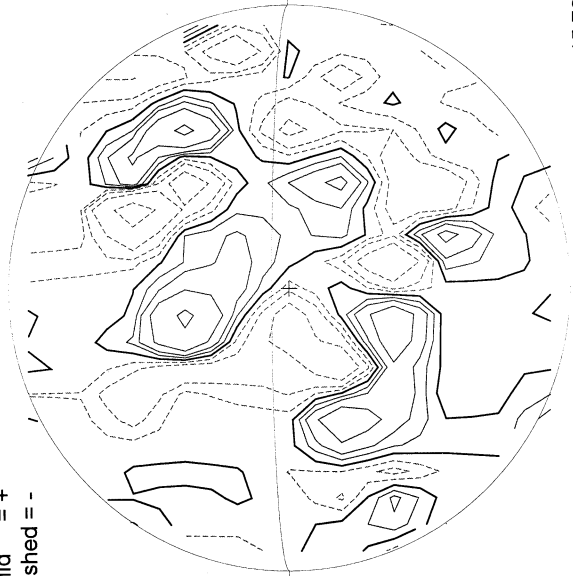
Bright = +
Dark = -



1500 UT

STANFORD MAGNETOGRAM

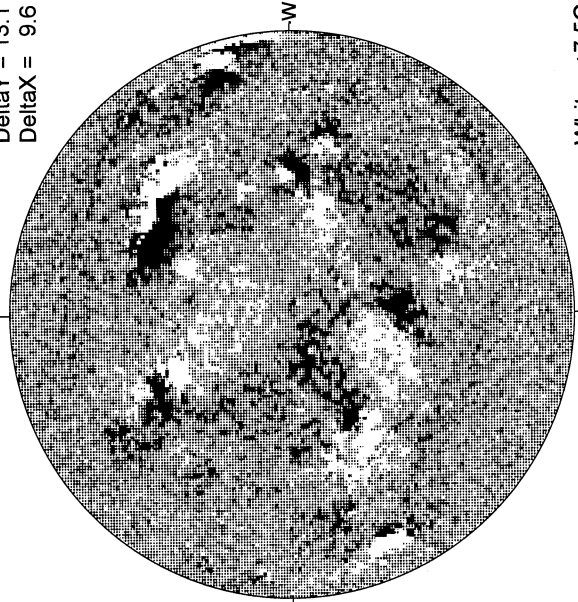
Solid = +
Dashed = -



2003 UT

MT. WILSON MAGNETOGRAM

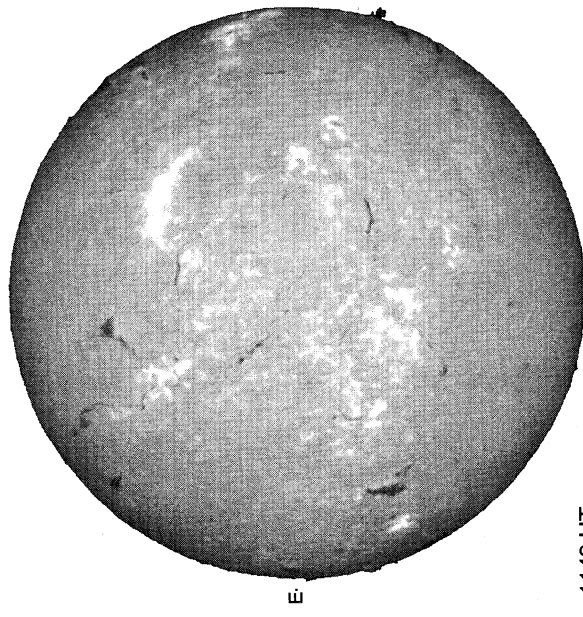
Delta Y = 13.1
Delta X = 9.6



White = +7.5G
Black = -7.5G

15.70 -
16.63 UT

MEUDON H-ALPHA

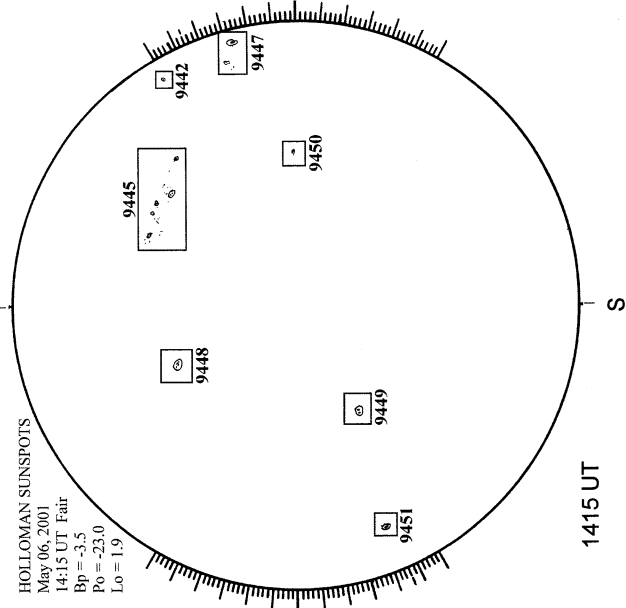


1149 UT

HOLLOMAN SUNSPOT

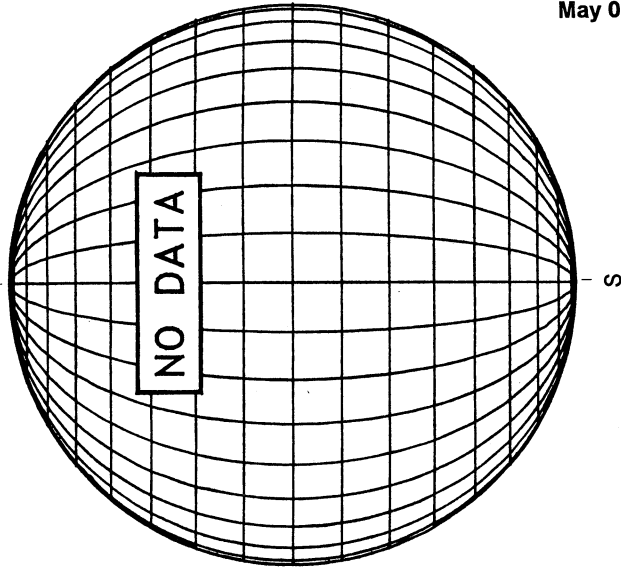
HOLLOMAN SUNSPOTS

May 06, 2001
14:15 UT Fair
Bp = -3.5
P0 = -23.0
L0 = 1.9



1415 UT

SACRAMENTO PEAK CORONA (1.15 Radii)---



57
May 01

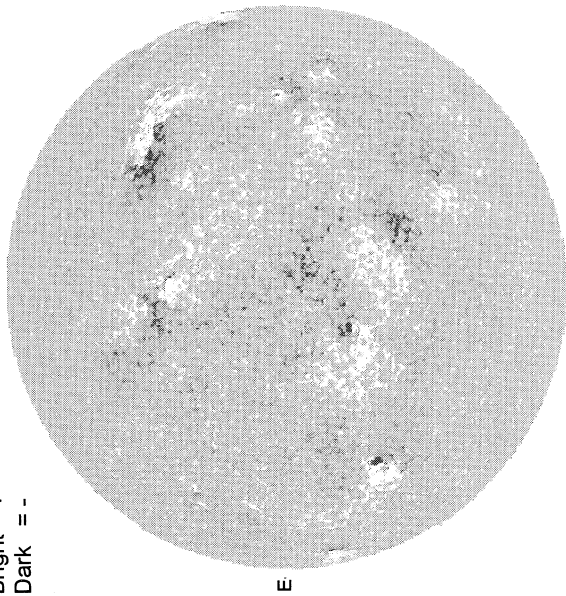
58
May 01

MAY 7, 2001 (P= -22.95, Bo = -3.54, Lo = 356.28)

KITT PEAK MAGNETOGRAM

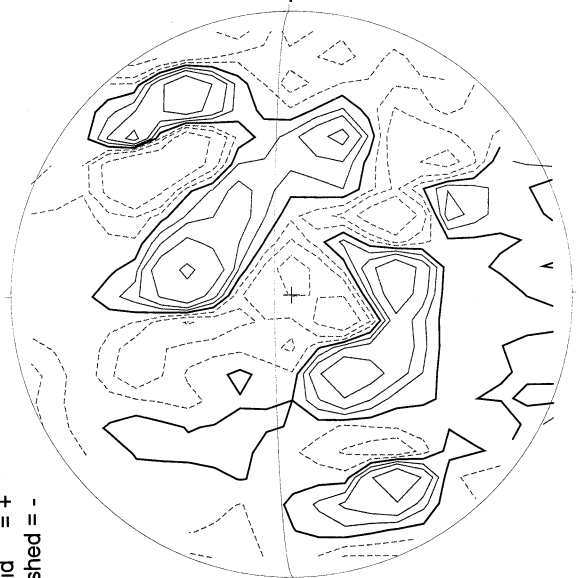
868.8 nm

Bright = +
Dark = -



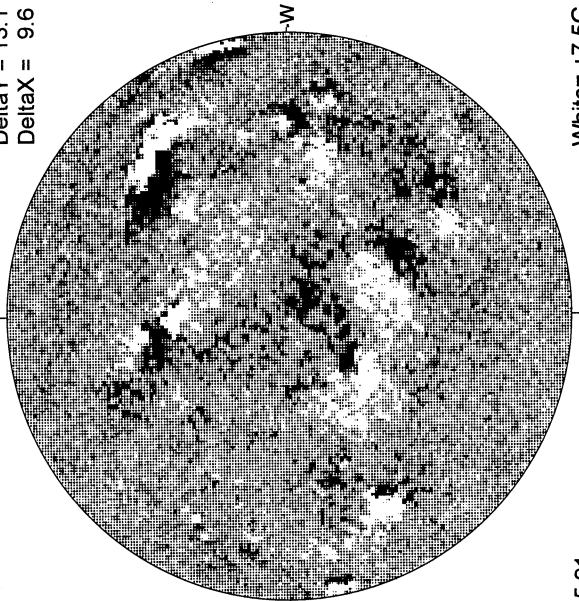
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



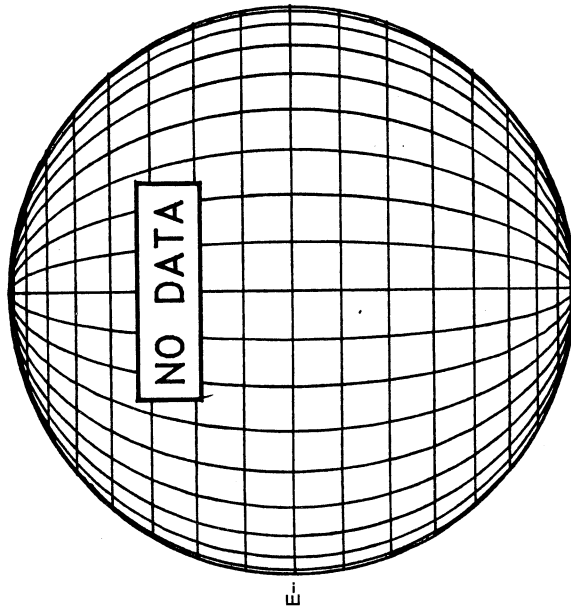
MT. WILSON MAGNETOGRAM

Delta Y = 13.1
Delta X = 9.6



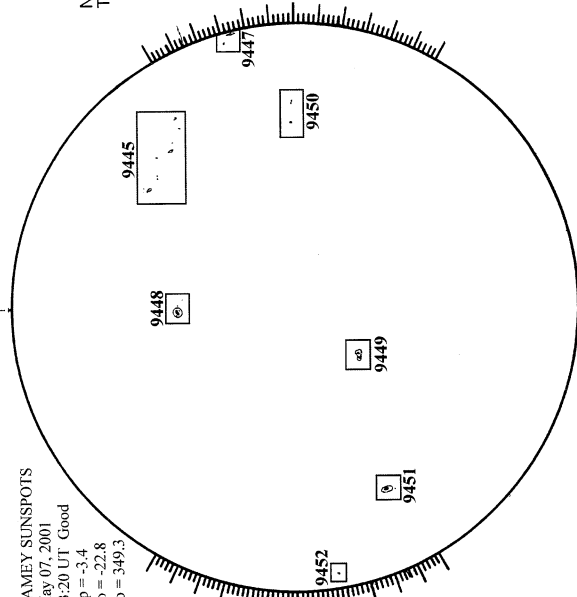
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



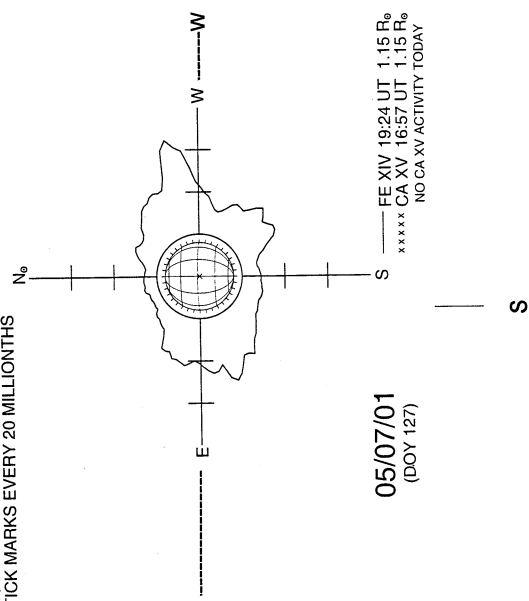
RAMEY SUNSPOTS

RAMEY SUNSPOTS
May 07, 2001
13:20 UT Good
Bp = -3.4
Po = -22.8
Lo = 349.3



SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



05/07/01
(DOY 127)

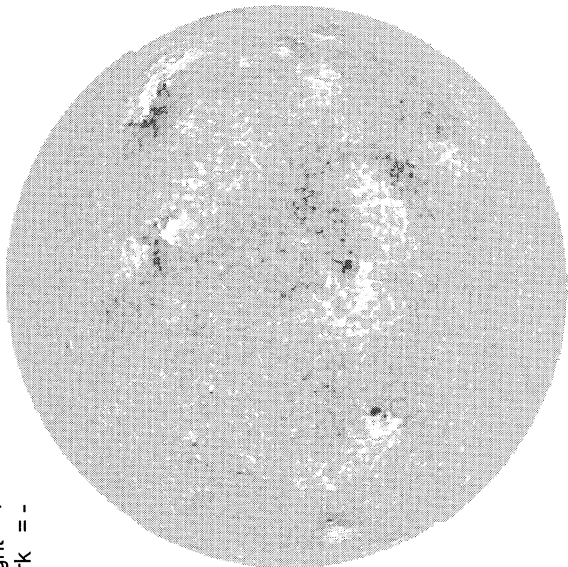
FE XIV 19:24 UT 1.15 R_o
CA XV 16:57 UT 1.15 R_o
NO CA XV ACTIVITY TODAY

MAY 8, 2001 (P= -22.72, Bo = -3.43, Lo = 343.06)

KITT PEAK MAGNETOGRAM

868.8 nm

Bright = +
Dark = -



1542 UT

STANFORD MAGNETOGRAM

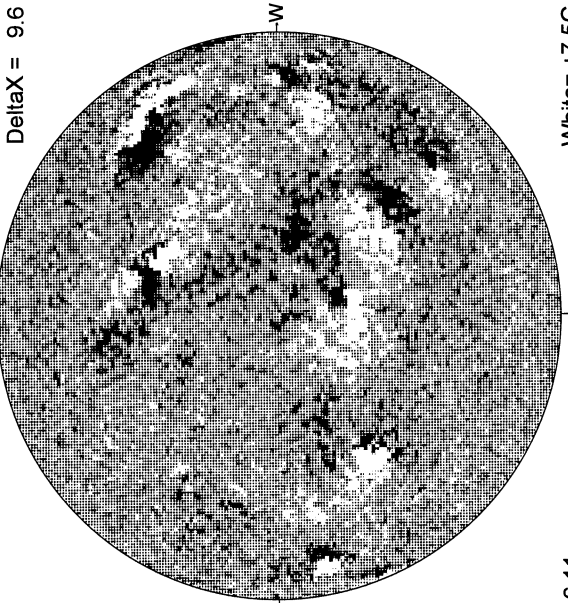
Solid = +
Dashed = -



1947 UT

MT. WILSON MAGNETOGRAM

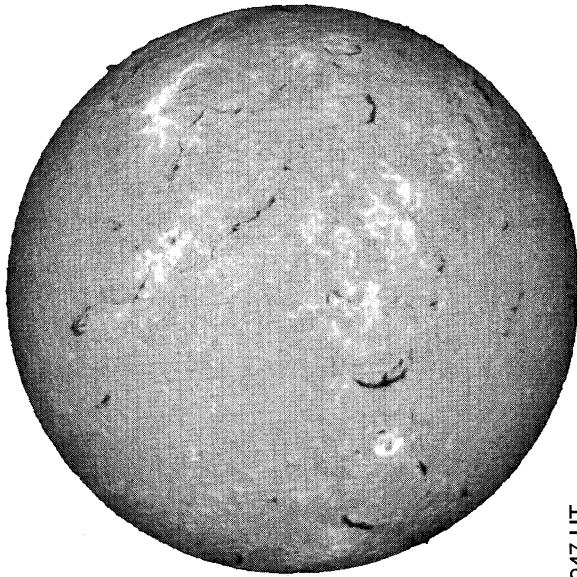
Delta Y = 13.1
Delta X = 9.6



16.11 -
17.04 UT

White = +7.5G
Black = -7.5G

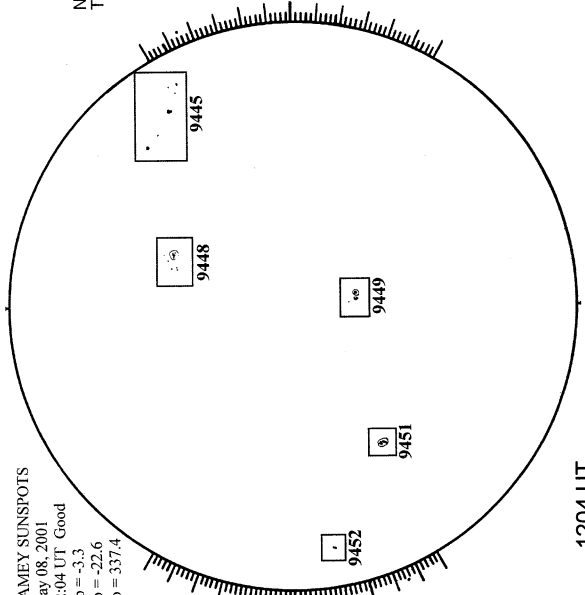
MEUDON H-ALPHA



0947 UT

RAMEY SUNSPOT

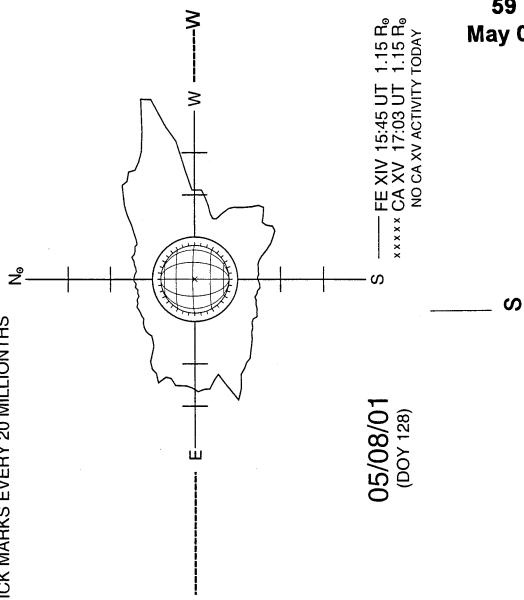
RAMEY SUNSPOTS
May 08, 2001
12:04 UT Good
Bp = -3.3
Po = -22.6
Lo = 337.4



1204 UT

SACRAMENTO PEAK CORONA (1.15 Radii)---

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



05/08/01
(DOY 128)

FE XIV 15:45 UT 1.15 R_o
CA XV 17:03 UT 1.15 R_o
NO CA XV ACTIVITY TODAY

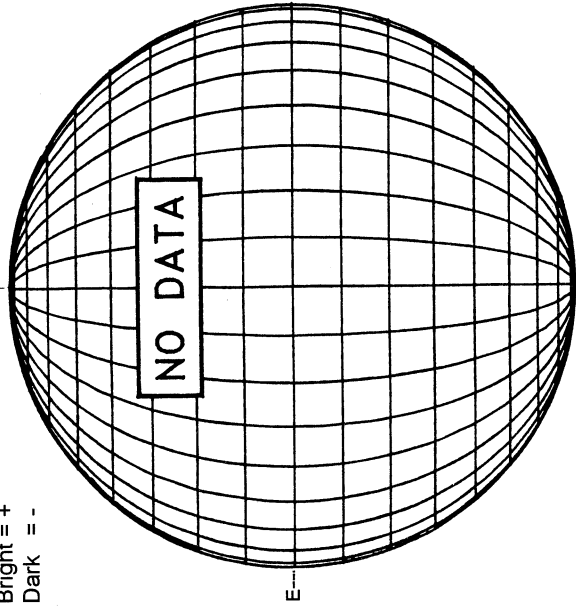
60
May 01

MAY 9, 2001 (P = -22.49, Bo = -3.32, Lo = 329.84)

KITT PEAK MAGNETOGRAM

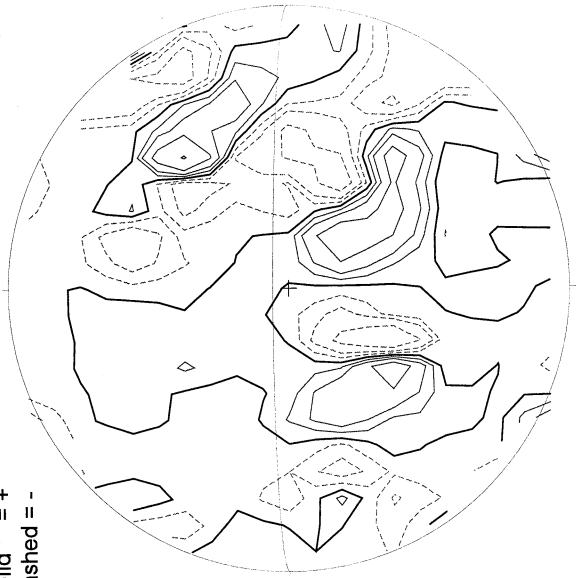
**868.8 nm

Bright = +
Dark = -



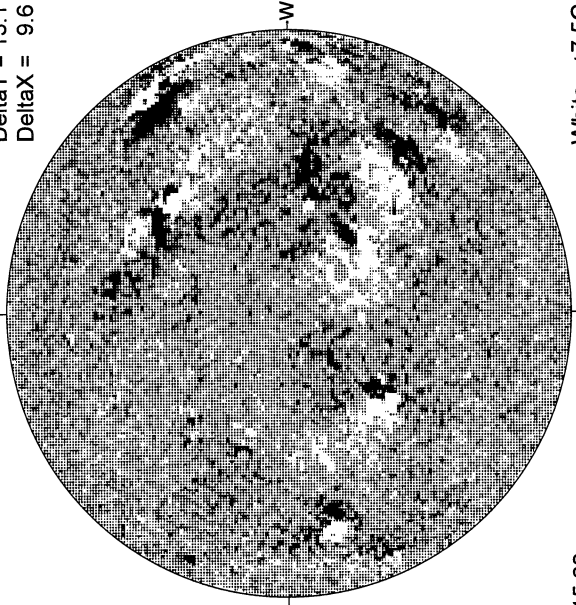
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

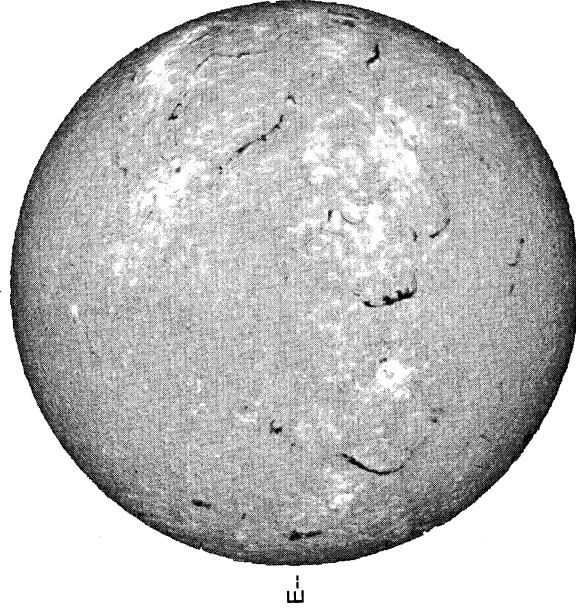
DeltaY = 13.1
DeltaX = 9.6



White = +7.5G
Black = -7.5G

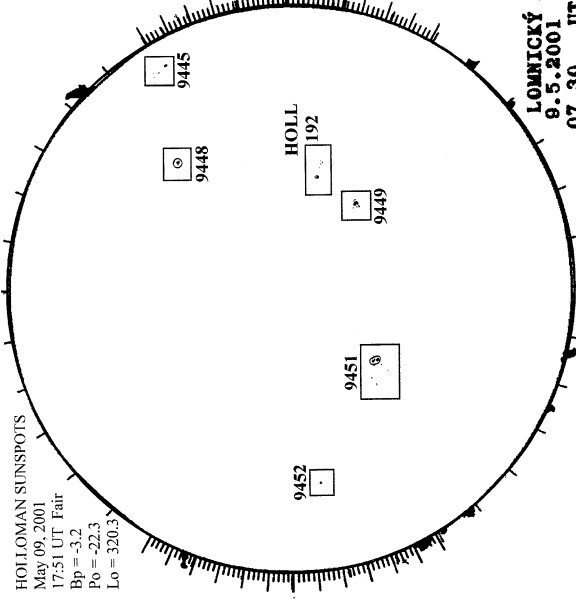
15.68 -
16.61 UT

MEUDON H-ALPHA



1403 UT

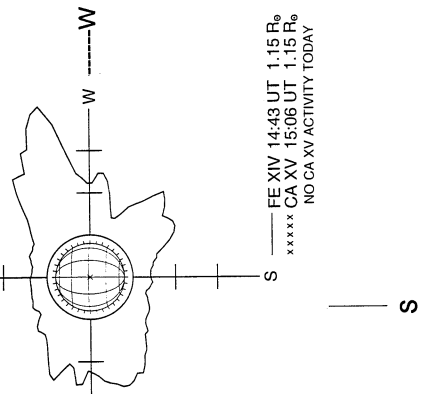
HOLLOMAN SUNSPOT



HOLLOMAN SUNSPOTS
May 09, 2001
17:51 UT Fair
Bp = -3.2
Po = -22.3
Lo = 320.3

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



05/09/01
(DOY 129)

LOWNICKY
9-5-2001
07 30 UT

1751 UT
0730 UT LOMN Prom S

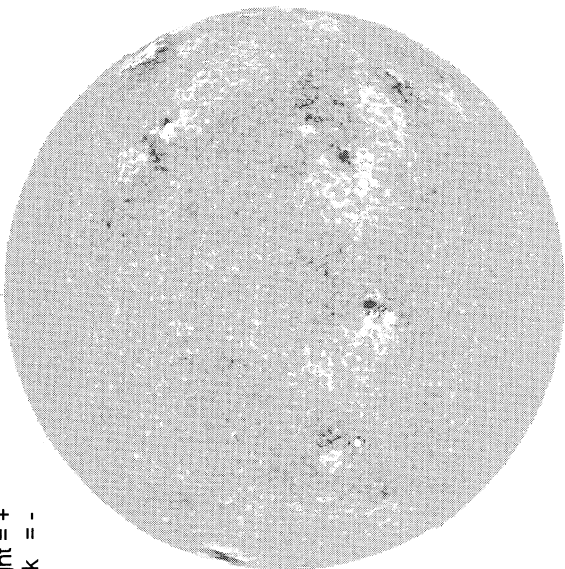
MAY 10, 2001 (P= -22.26, Bo = -3.21 Lo = 316.62)

KITT PEAK MAGNETOGRAM

868.8 nm

N

Bright = +
Dark = -

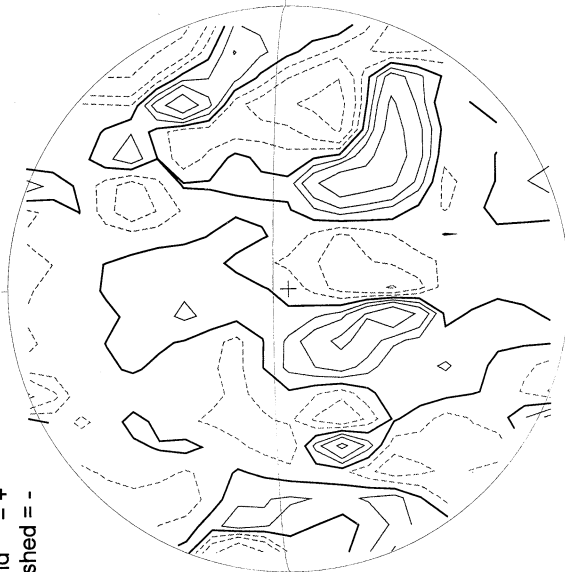


1428 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

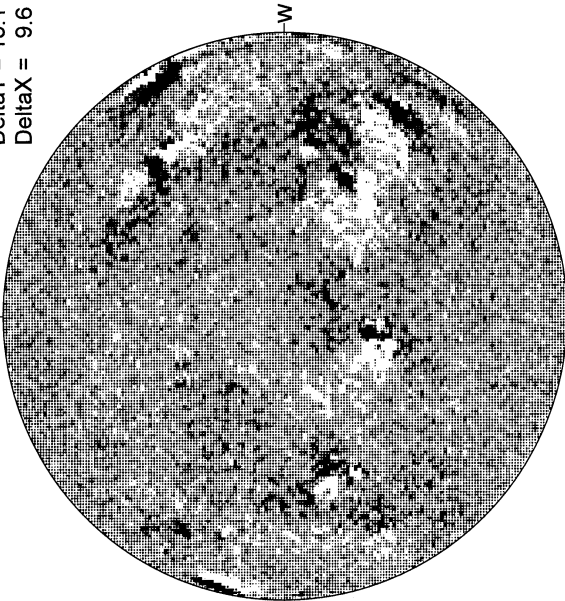


2055 UT

MT. WILSON MAGNETOGRAM

N

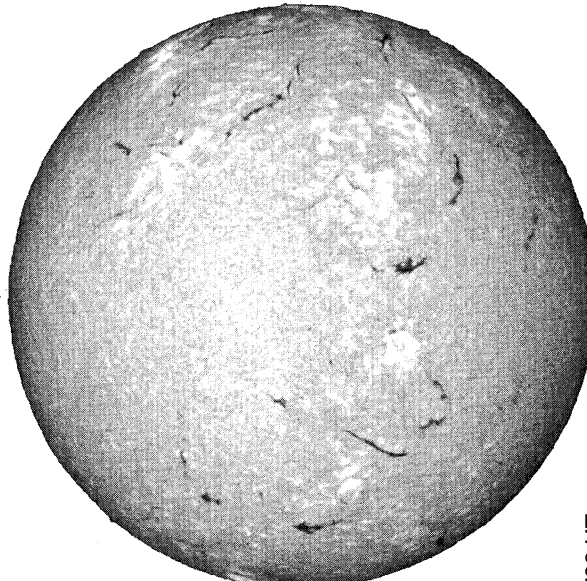
DeltaY = 13.1
DeltaX = 9.6



16.03 -
16.96 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



0736 UT

HOLLOMAN SUNSPOTS

HOLLOMAN SUNSPOTS

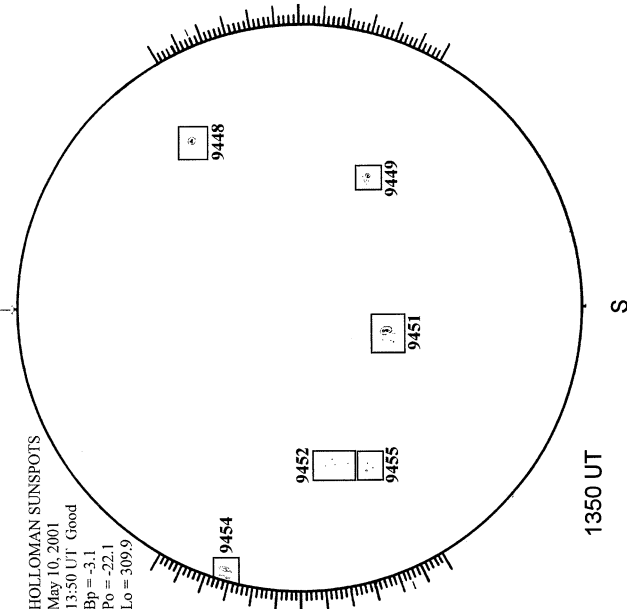
May 10, 2001

13:50 UT Good

Bp = -3.1

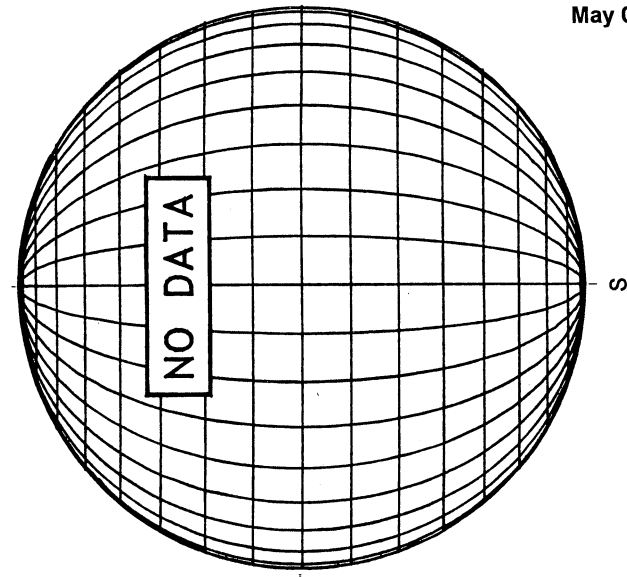
Po = -22.1

Lo = 309.9



1350 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



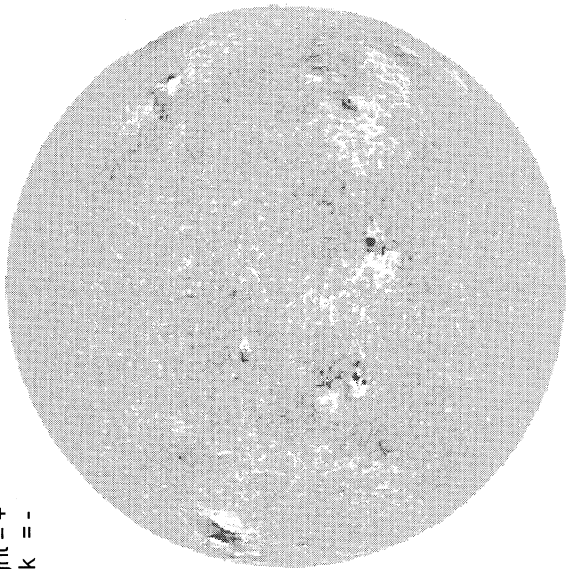
61
May 01

MAY 11, 2001 (P = -22.01, Bo = -3.10, Lo = 303.39)

KITT PEAK MAGNETOGRAM

868.8 nm

Bright = +
Dark = -



1422 UT

STANFORD MAGNETOGRAM

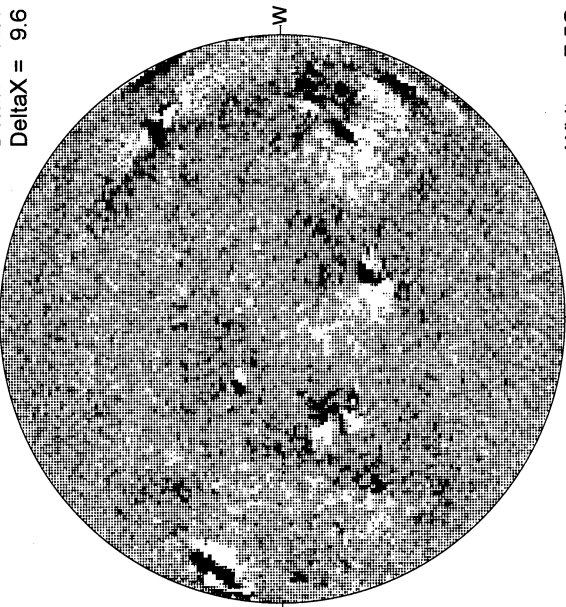
Solid = +
Dashed = -



2217 UT

MT. WILSON MAGNETOGRAM

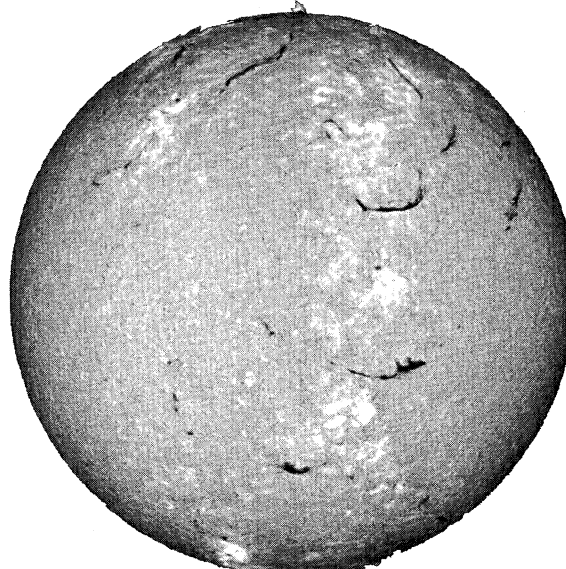
DeltaY = 13.1
DeltaX = 9.6



16.03 -
16.96 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

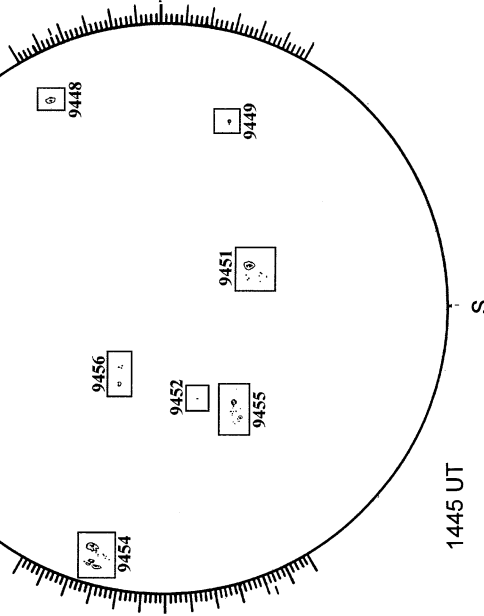


0740 UT

HOLLOMAN SUNSPOTS

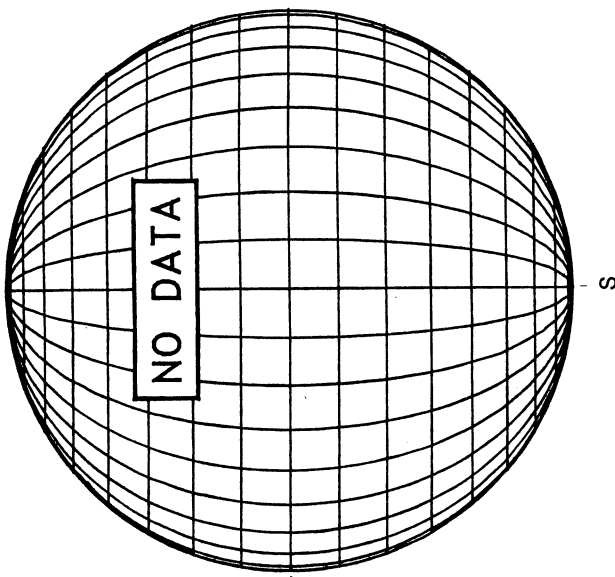
HOLLOMAN SUNSPOTS

May 11, 2001
14:45 UT Good
Bp = -3.0
Po = -21.8
Lo = 296.2



1445 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



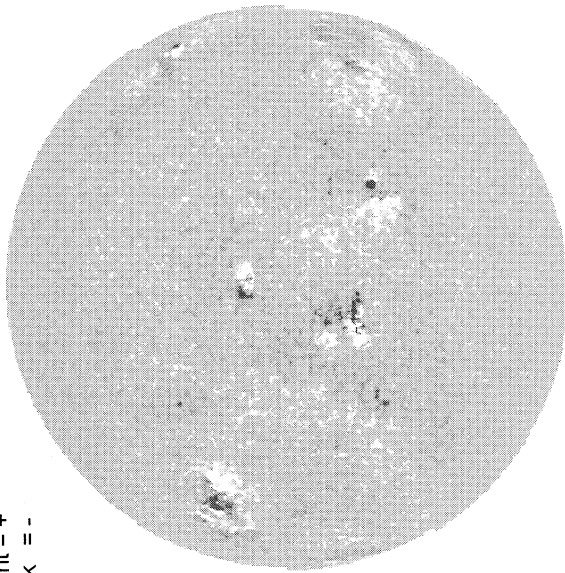
MAY 12, 2001 (P = -21.76, Bo = -2.99, Lo = 290.17)

KITT PEAK MAGNETOGRAM

868.8 nm

N

Bright = +
Dark = -

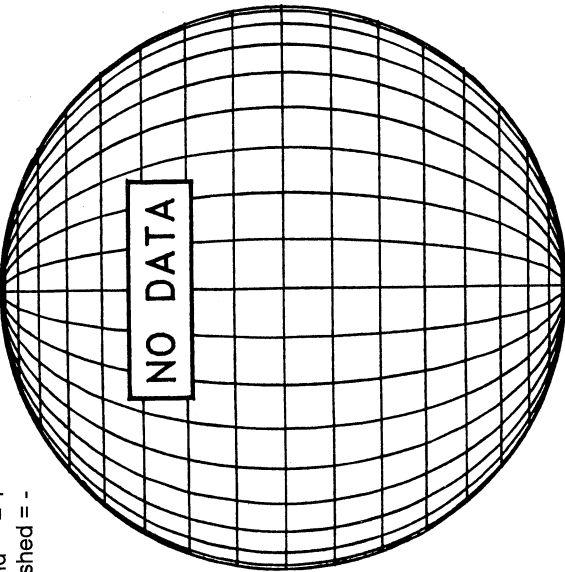


1532 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

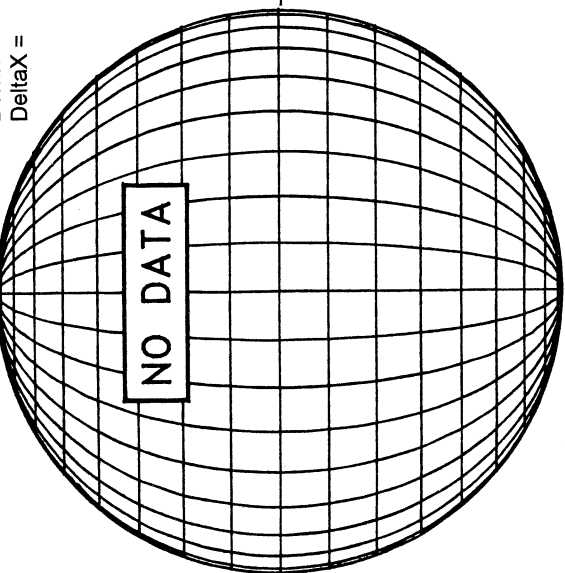
N



MT. WILSON MAGNETOGRAM

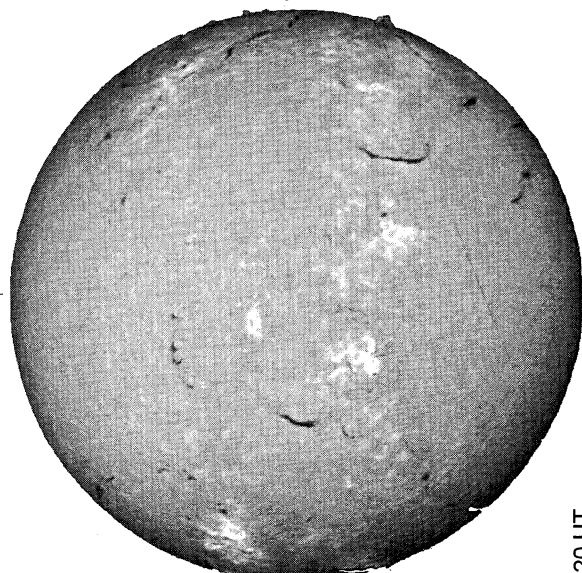
Delta Y =
Delta X =

N



White = +7.5G
Black = -7.5G

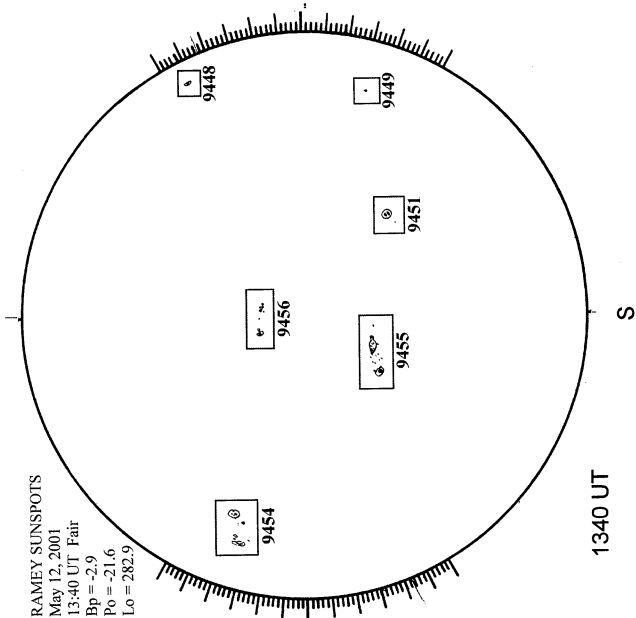
MEUDON H-ALPHA



0520 UT

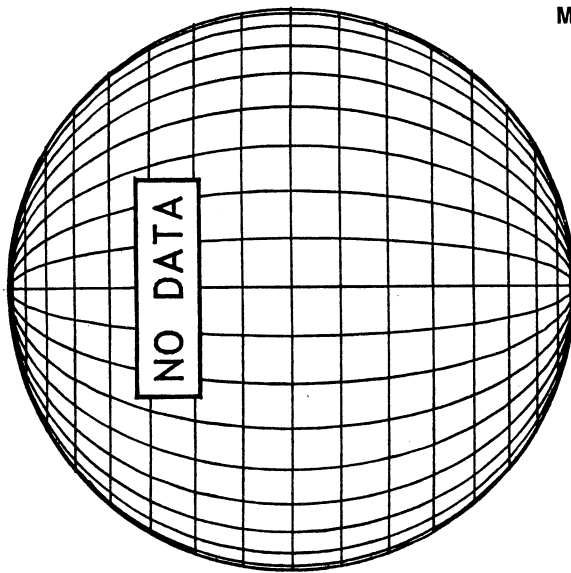
RAMEY SUNSPOTS

RAMEY SUNSPOTS
May 12, 2001
13:40 UT Fair
Bp = -2.9
Po = -21.6
Lo = 282.9



1340 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

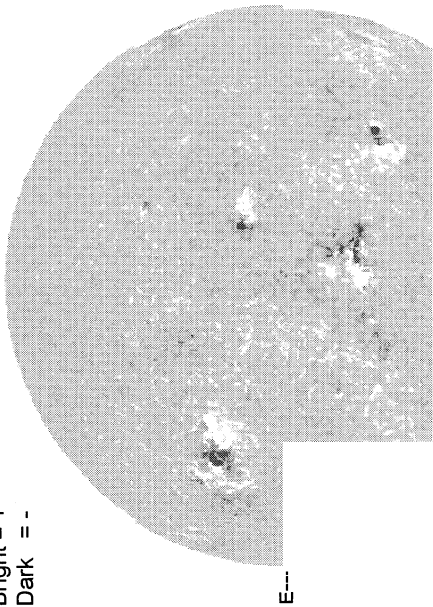


MAY 13, 2001 (P = -21.50, Bo = -2.88, Lo = 276.94)

KITT PEAK MAGNETOGRAM

868.8 nm

Bright = +
Dark = -



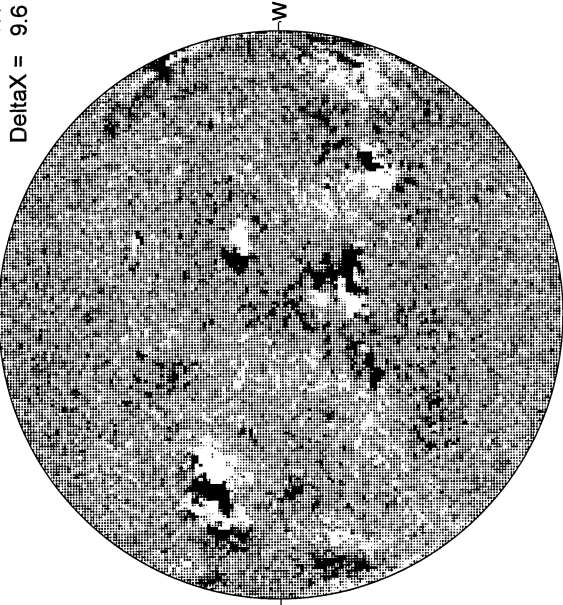
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6

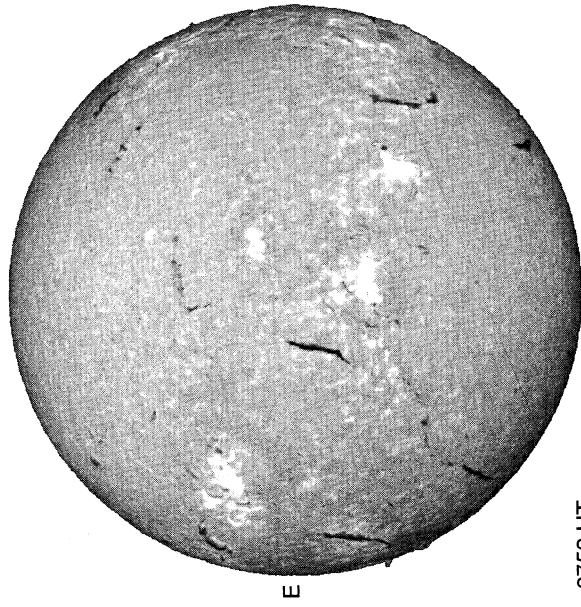


White = +7.5G
Black = -7.5G

15.92 -
16.84 UT

1631 UT

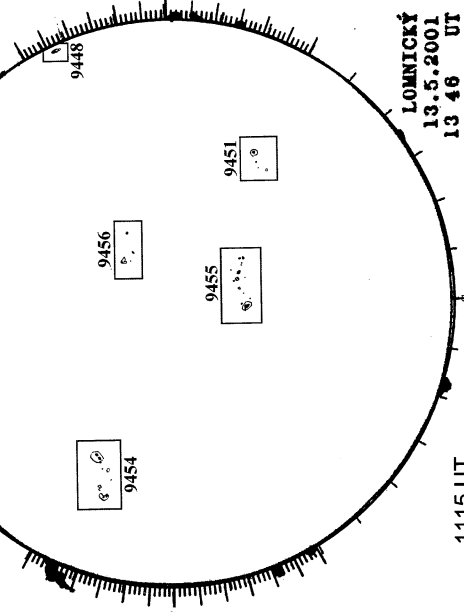
MEUDON H-ALPHA



0750 UT

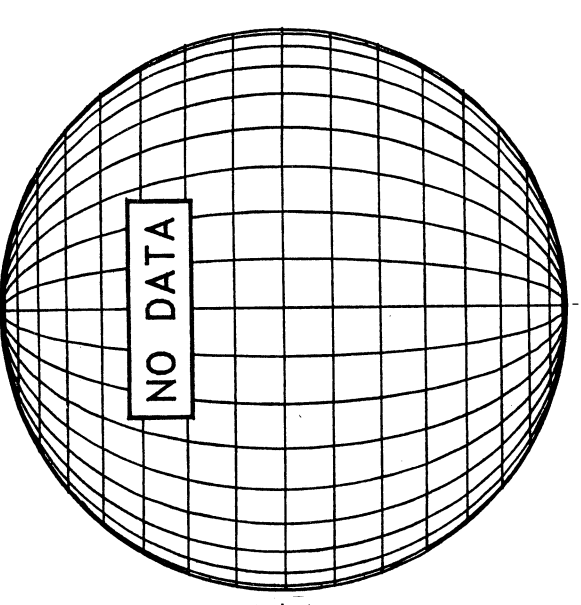
RAMEY SUNSPOT

RAMEY SUNSPOTS
May 13, 2001
11:15 UT Poor
Bp = -2.8
Po = -21.3
Lo = 271.0



1115 UT
1346 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----



NO DATA

LOMNICKY
13.5.2001
13 46 UT

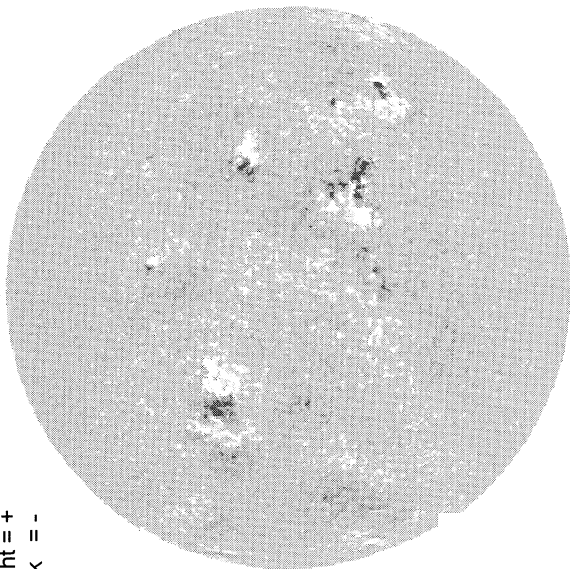
MAY 14, 2001 (P = -21.24, Bo = -2.77, Lo = 263.72)

KITT PEAK MAGNETOGRAM

868.8 nm

N

Bright = +
Dark = -

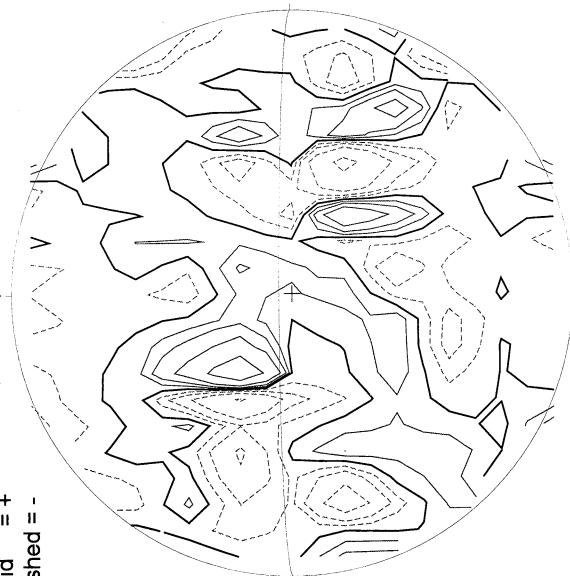


1555 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

N

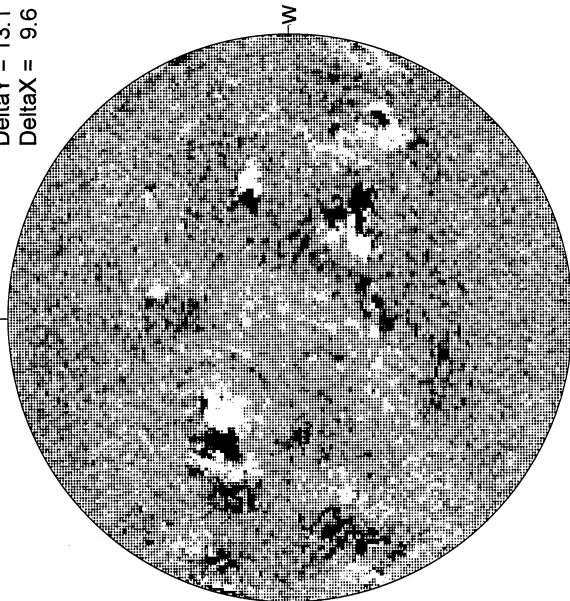


2029 UT

MT. WILSON MAGNETOGRAM

Delta Y = 13.1
Delta X = 9.6

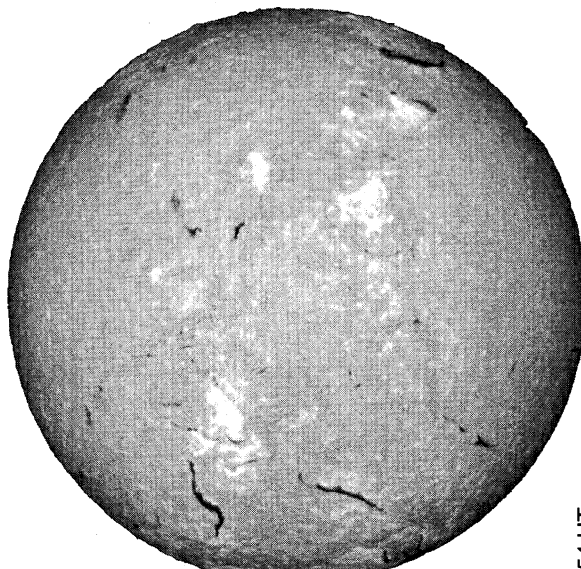
N



16.24 -
17.16 UT

White = +7.5G
Black = -7.5G

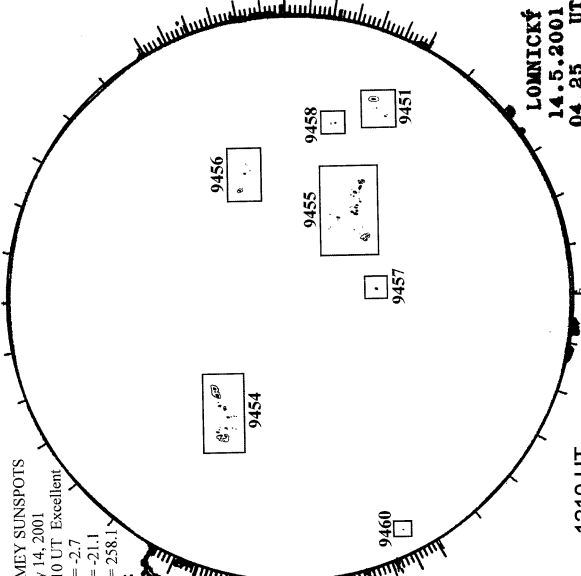
MEUDON H-ALPHA



1454 UT

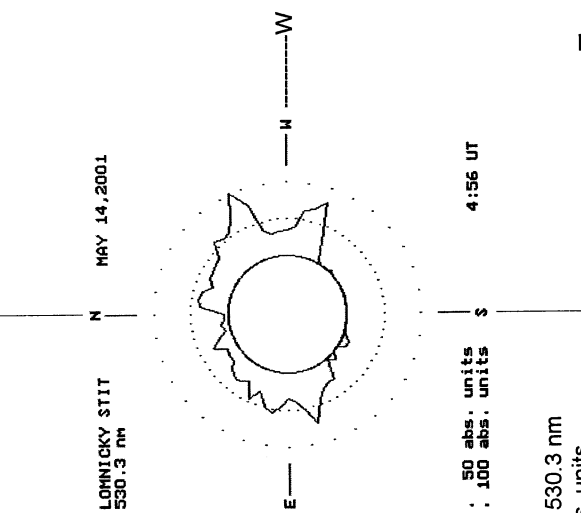
RAMEY SUNSPOT

RAMEY SUNSPOTS
May 14, 2001
12:10 UT Excellent
Bp = -2.7
Po = -21.1
Lo = 258.1



1210 UT
0425 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----



... 50 abs. units
... 100 abs. units

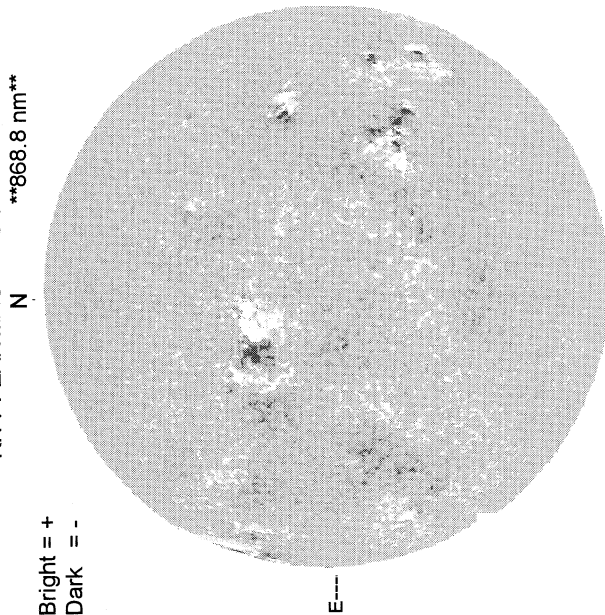
4:56 UT

LOMNICKY 0456 UT, 530.3 nm
14.5.2001
04 25 UT
... 50 abs. units
... 100 abs. units

KITT PEAK MAGNETOGRAM

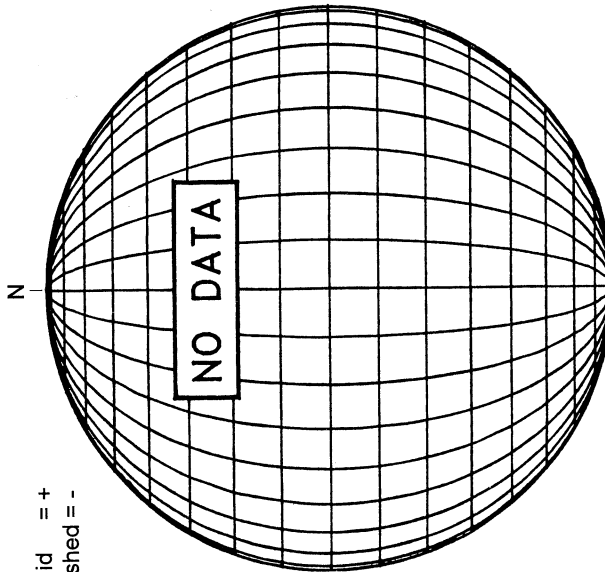
868.8 nm

Bright = +
Dark = -



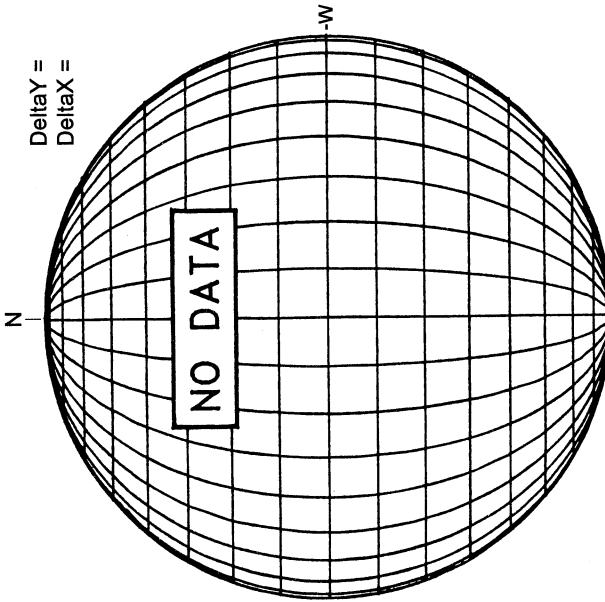
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

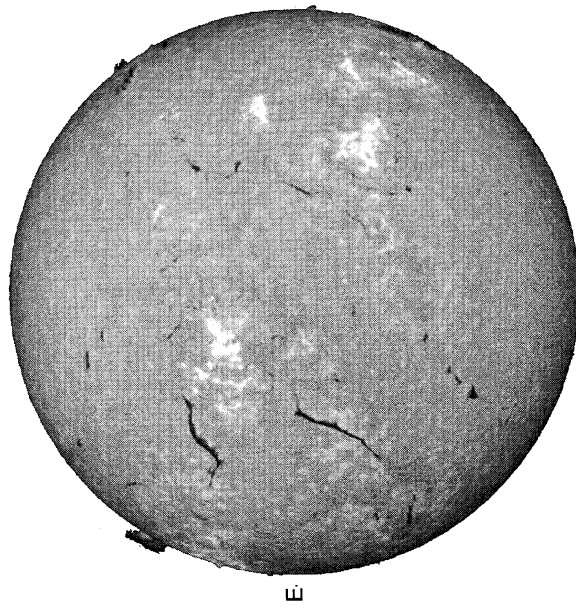
Delta Y =
Delta X =



White = +7.5G
Black = -7.5G

MAY 15, 2001 (P = -20.97, Bo = -2.66, Lo = 250.49)

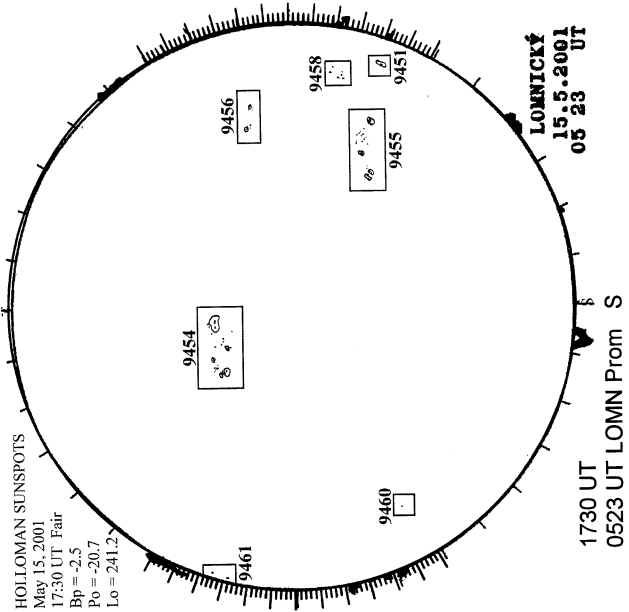
MEUDON H-ALPHA



HOLLOMAN SUNSPOT

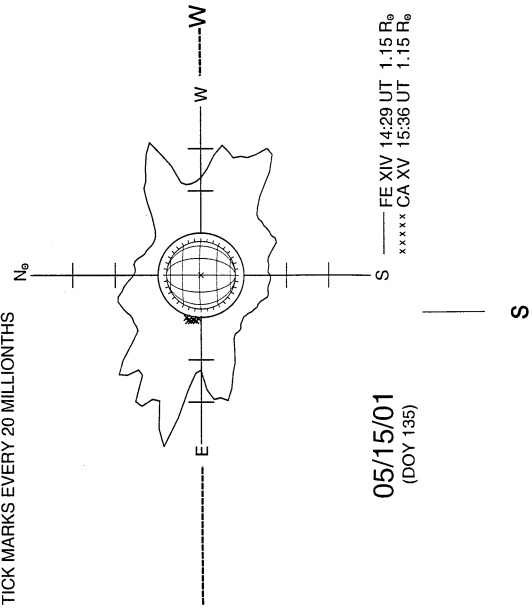
HOLLOMAN SUNSPOTS

May 15, 2001
17:30 UT Fair
Bp = -2.5
Po = -20.7
Lo = 241.2



SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



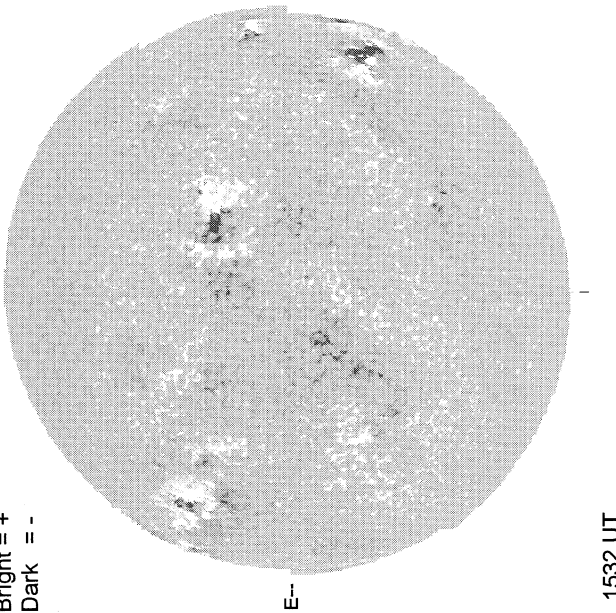
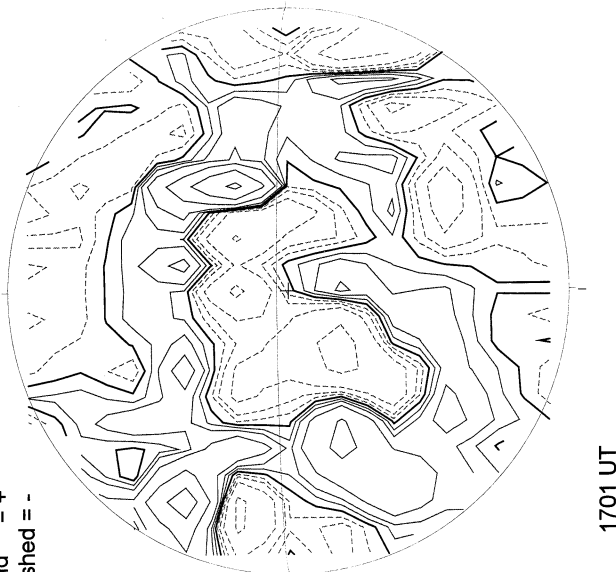
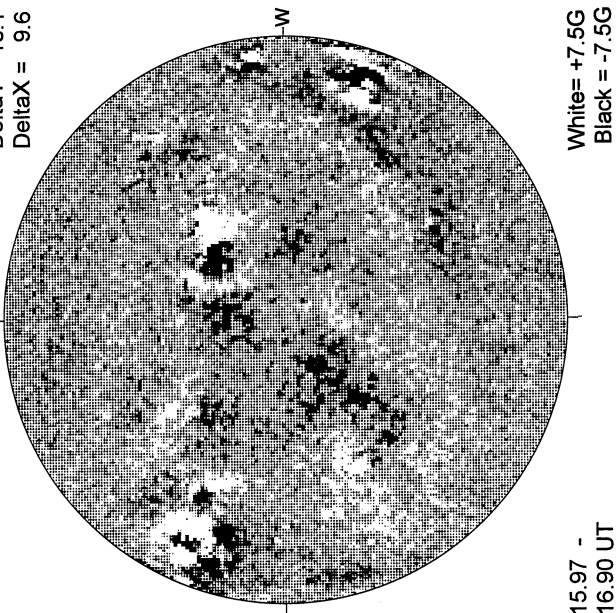
05/15/01
(DOY 135)

LOMNICKÝ
15.5.2001
05:23 UT

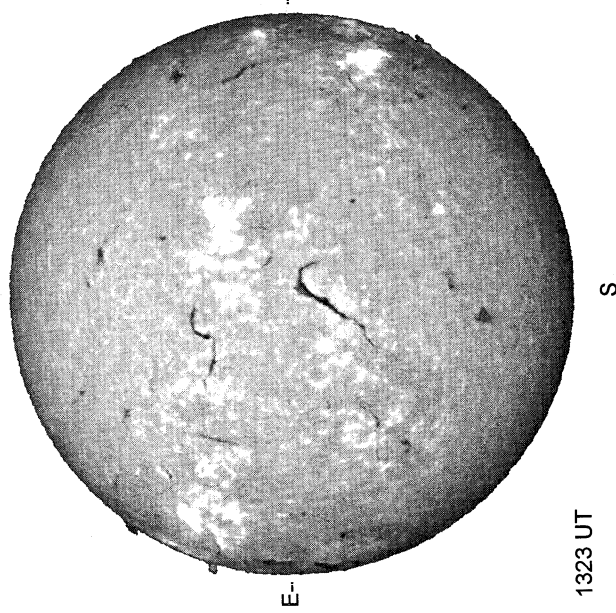
1730 UT
0523 UT LOMN Prom S

67
May 01

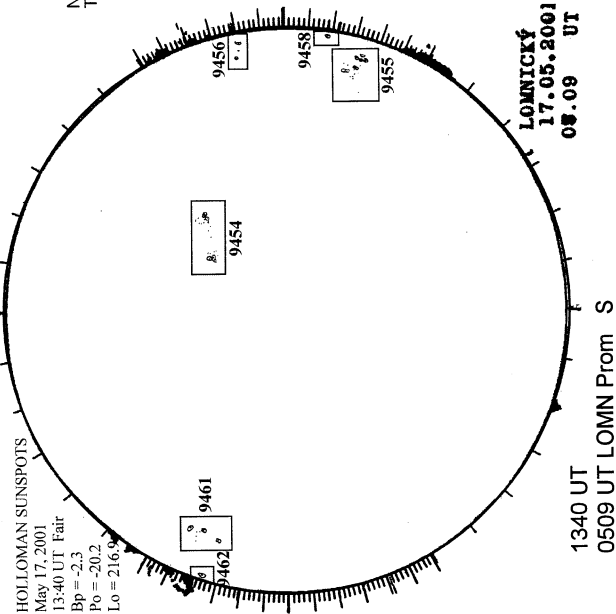
MAY 17, 2001 (P = -20.41, Bo = -2.43, Lo = 224.04)



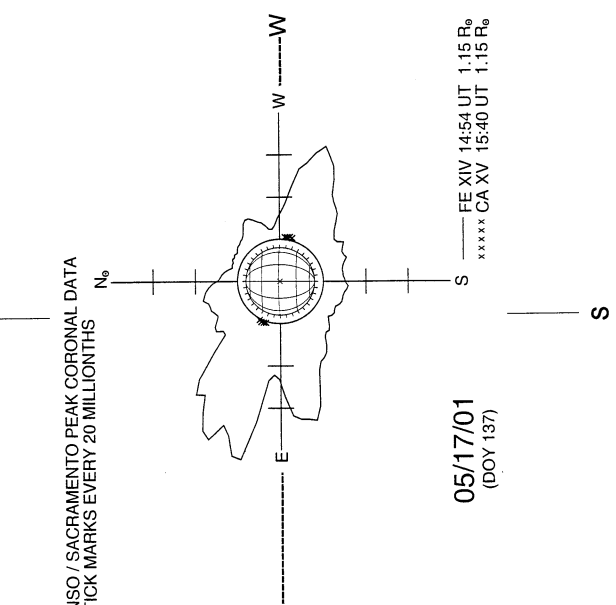
MEUDON H-ALPHA



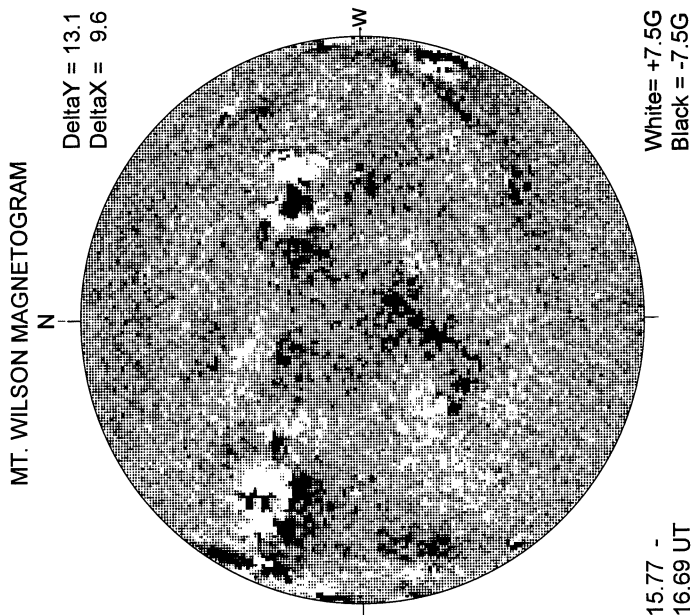
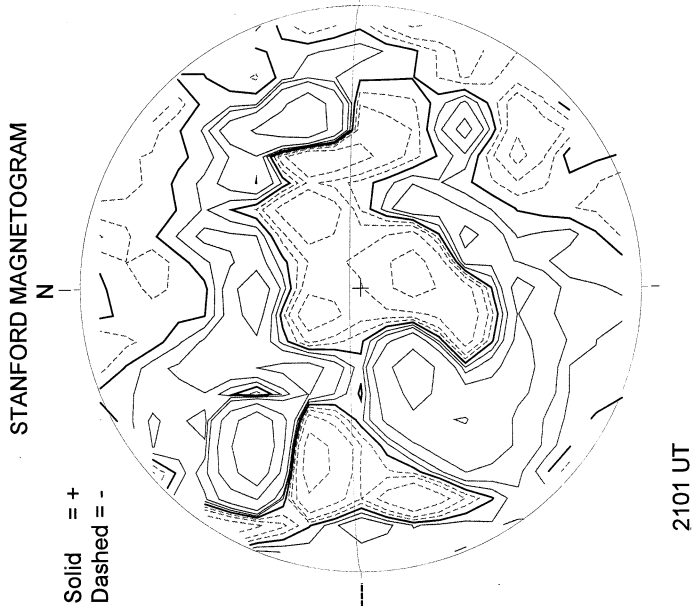
HOLLOMAN SUNSPOT



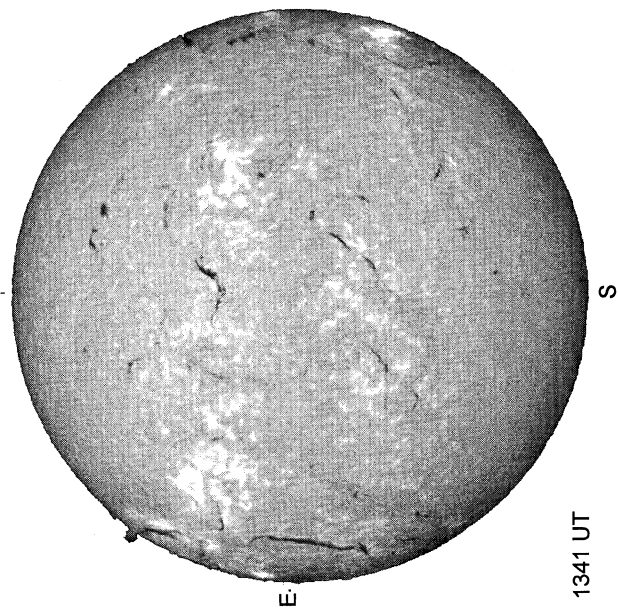
SACRAMENTO PEAK CORONA (1.15 Radii)----



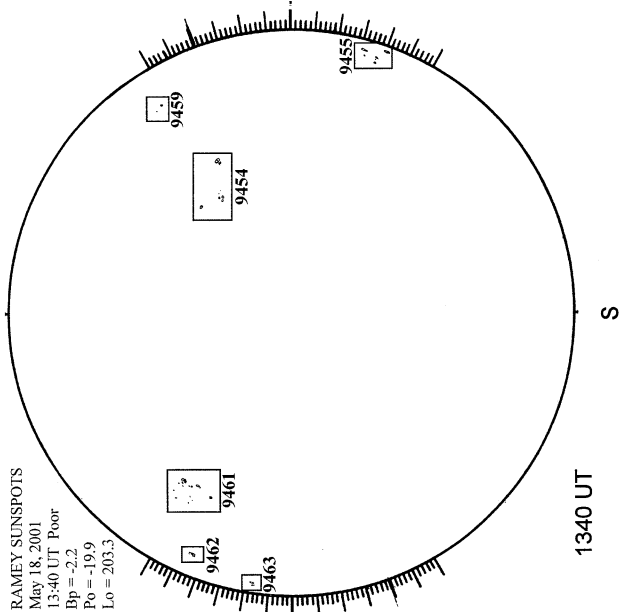
MAY 18, 2001 (P = -20.12, Bo = -2.31, Lo = 210.81)



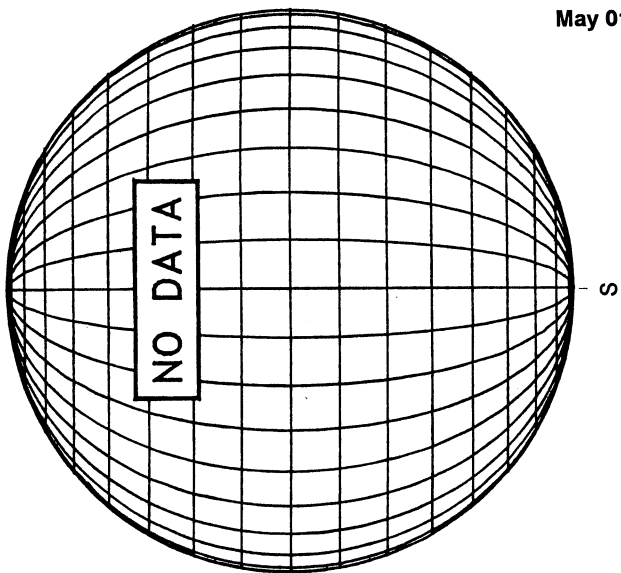
MEUDON H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)----

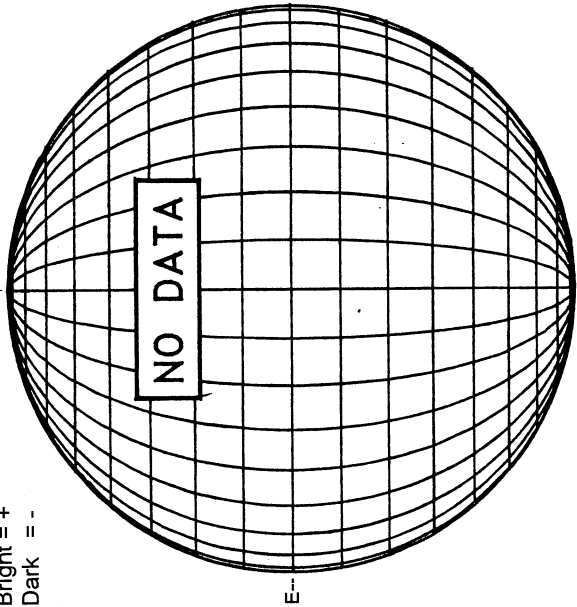


MAY 19, 2001 (P= -19.82, Bo = -2.20, Lo = 197.59)

KITT PEAK MAGNETOGRAM

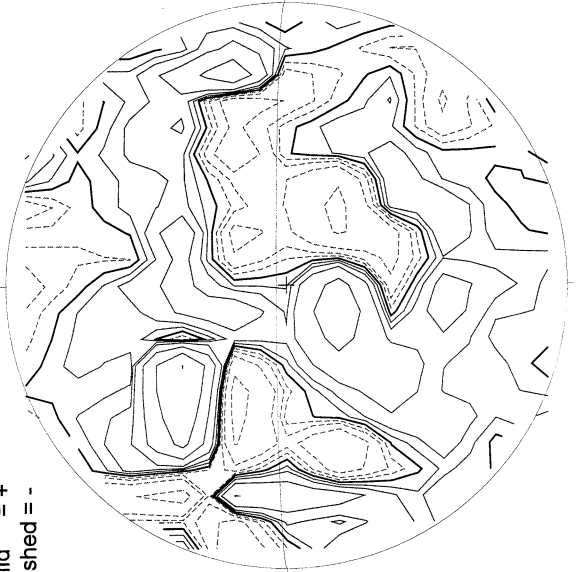
868.8 nm

Bright = +
Dark = -



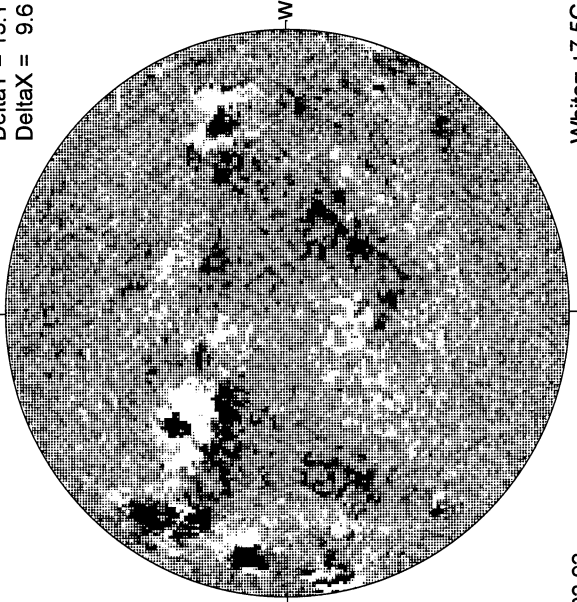
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

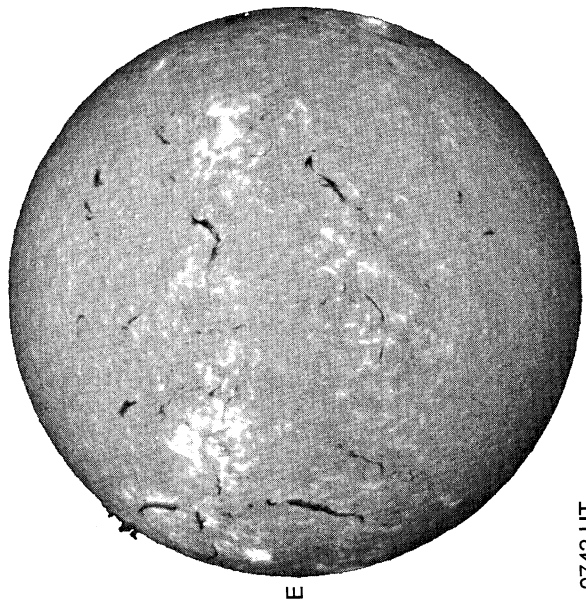
DeltaY = 13.1
DeltaX = 9.6



23.93 -
24.86 UT

White= +7.5G
Black = -7.5G

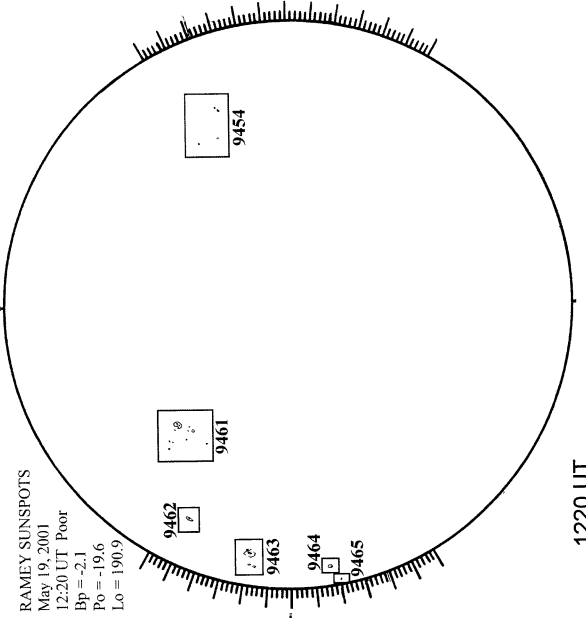
MEUDON H-ALPHA



0742 UT

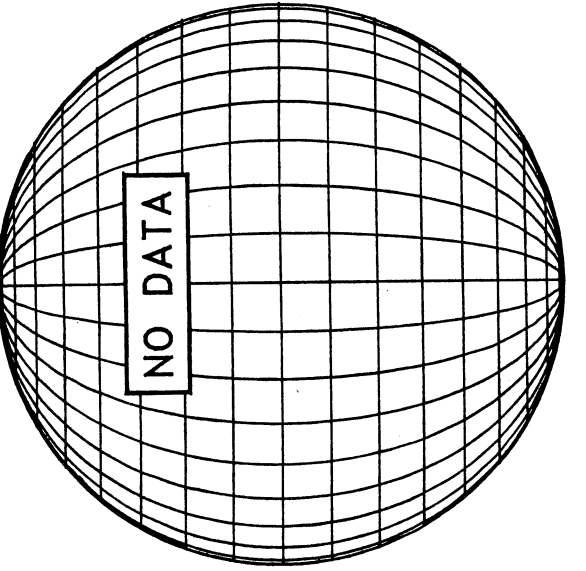
RAMEY SUNSPOT

RAMEY SUNSPOTS
May 19, 2001
12:20 UT Poor
Bp = -2.1
Po = -19.6
Lo = 190.9



1220 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



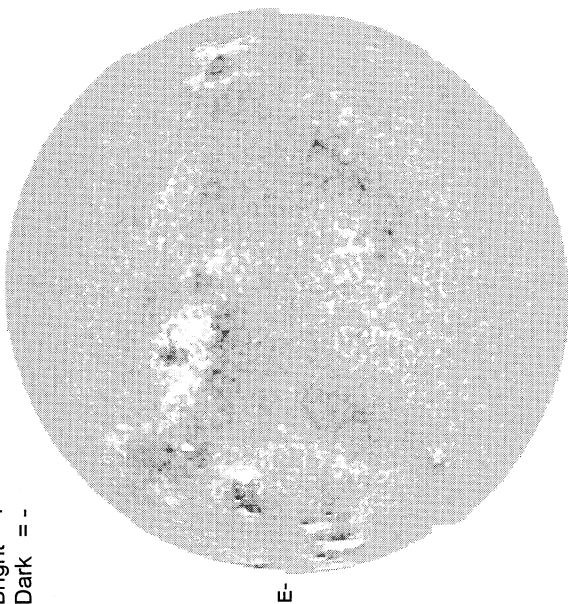
S

MAY 20, 2001 (P= -19.52, Bo = -2.08, Lo = 184.36)

KITT PEAK MAGNETOGRAM

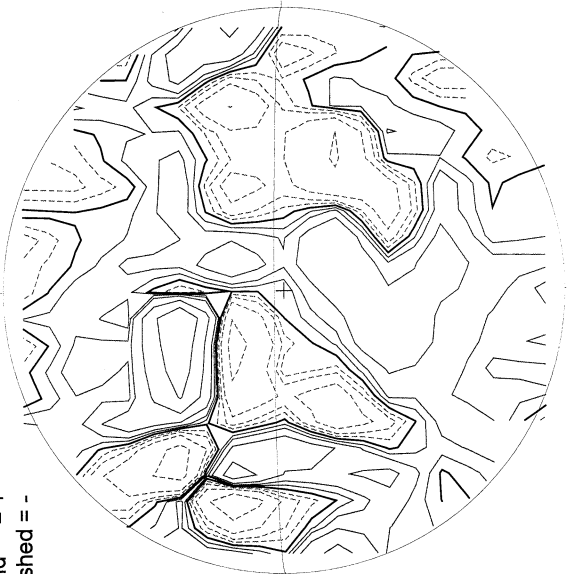
868.8 nm

Bright = +
Dark = -



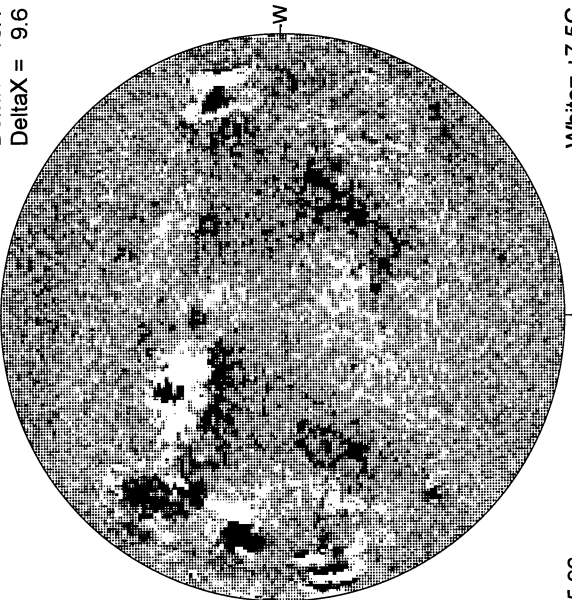
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



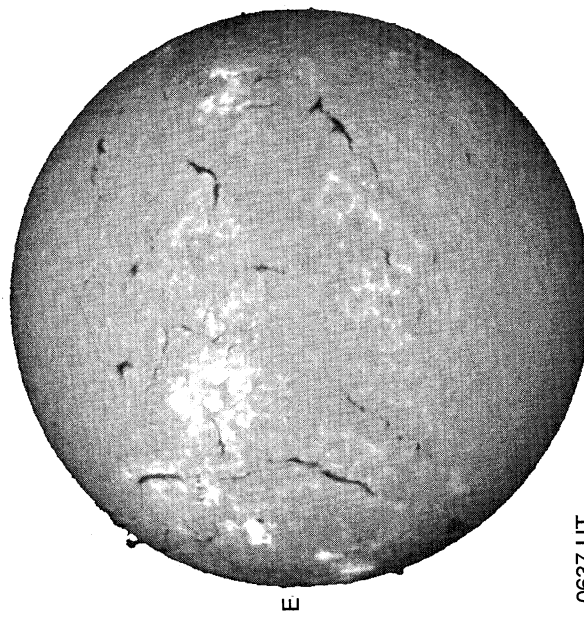
MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6



White = +7.5G
Black = -7.5G

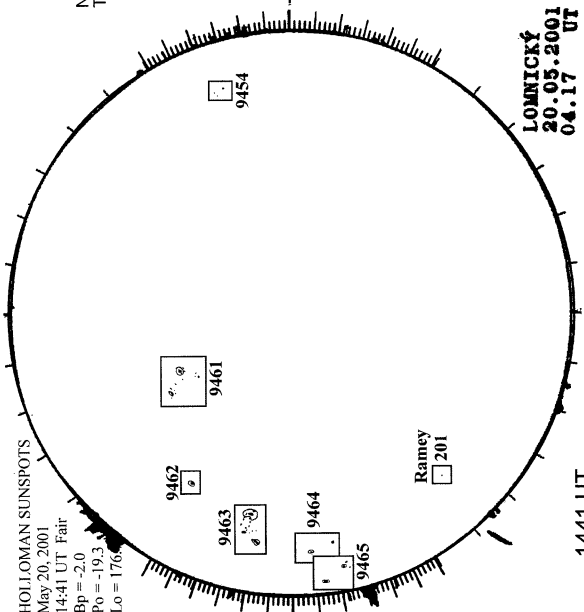
MEUDON H-ALPHA



HOLLOMAN SUNSPOT

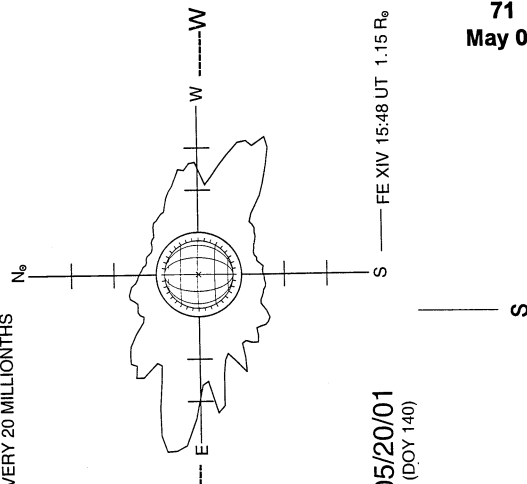
HOLLOMAN SUNSPOTS

May 20, 2001
14:41 UT Fair
Bp = -2.0
Po = -19.3
Lo = 176

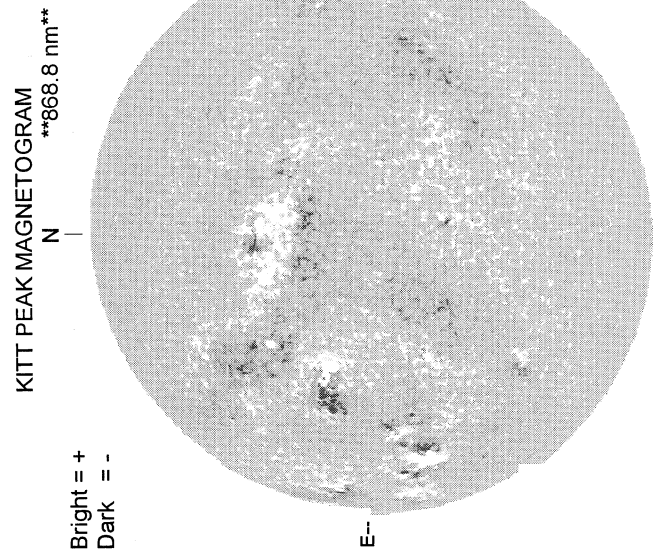


SACRAMENTO PEAK CORONA (1.15 Radii)----

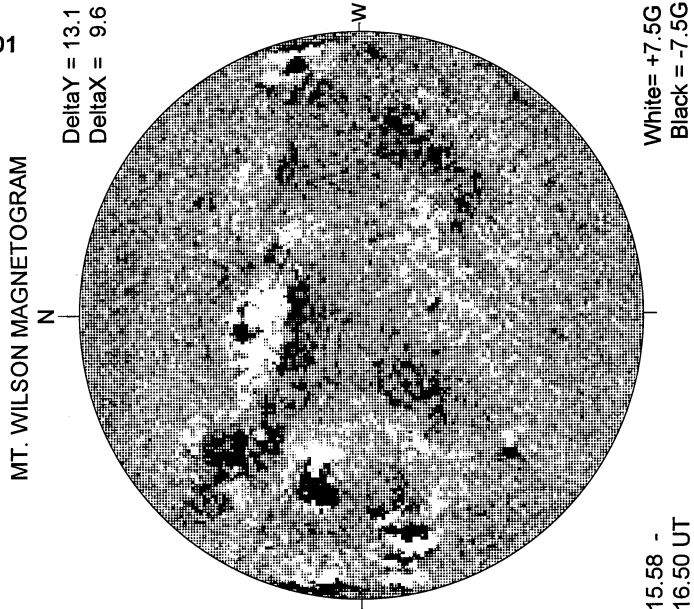
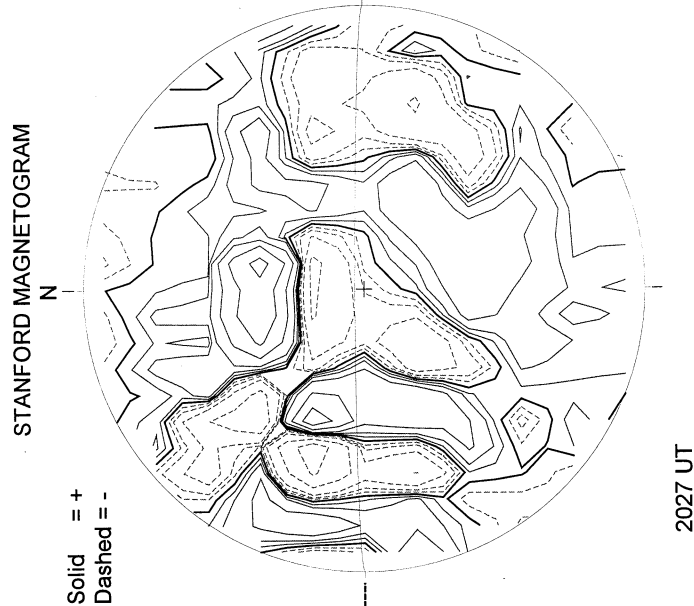
NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



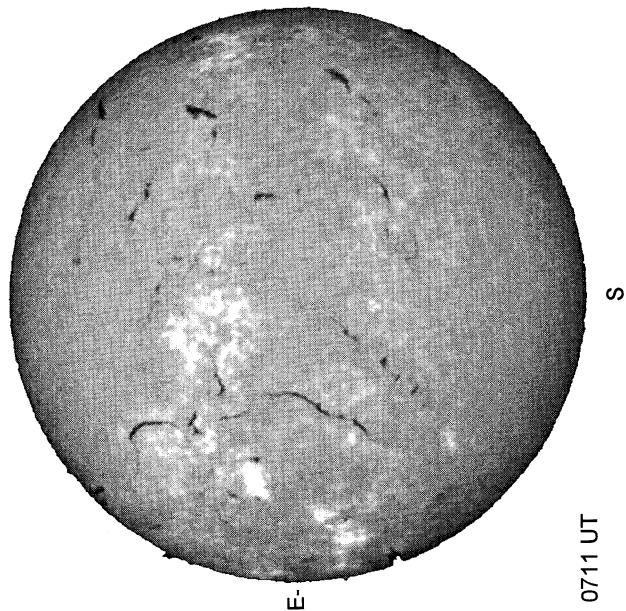
72
May 01



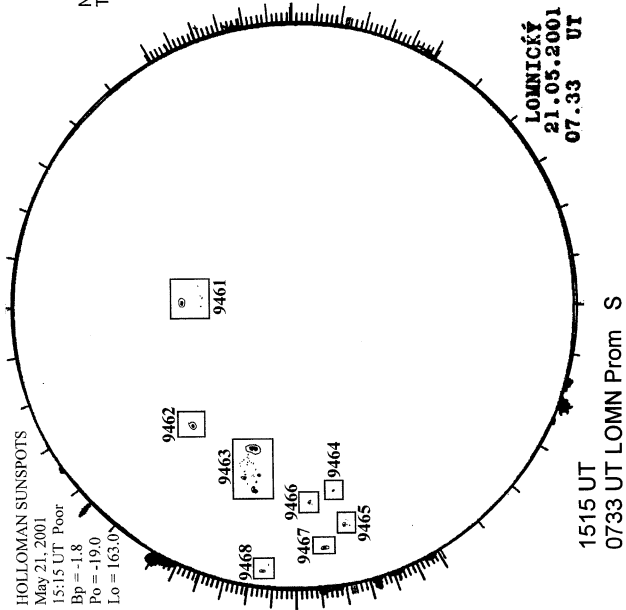
MAY 21, 2001 (P= -19.21, Bo = -1.96, Lo = 171.13)



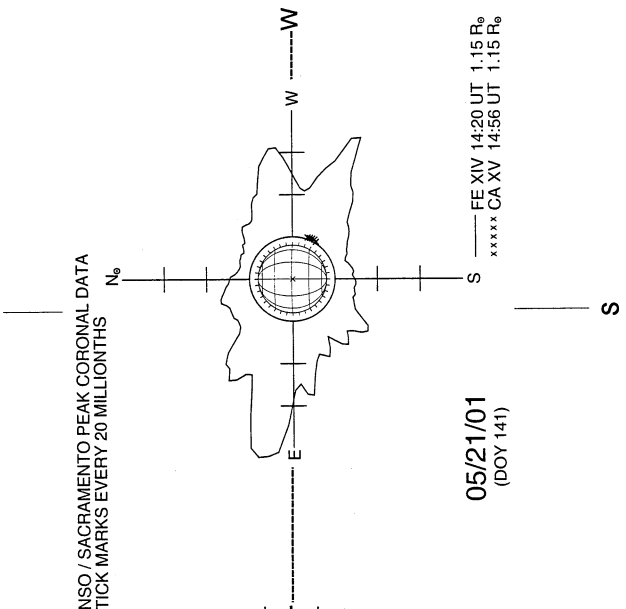
MEUDON H-ALPHA



HOLLOMAN SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)----

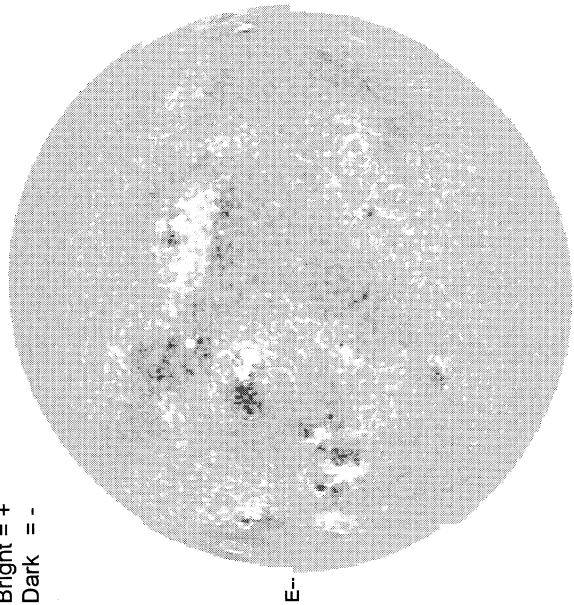


MAY 22, 2001 (P = -18.89, Bo = -1.85, Lo = 157.90)

KITT PEAK MAGNETOGRAM

868.8 nm

Bright = +
Dark = -



1703 UT

STANFORD MAGNETOGRAM

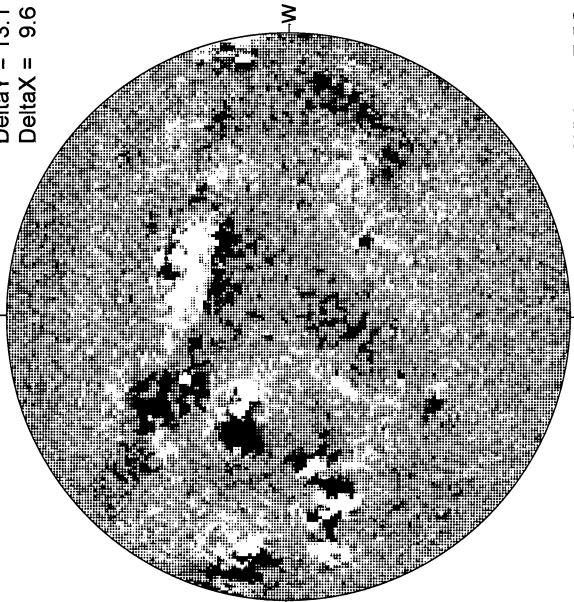
Solid = +
Dashed = -



1959 UT

MT. WILSON MAGNETOGRAM

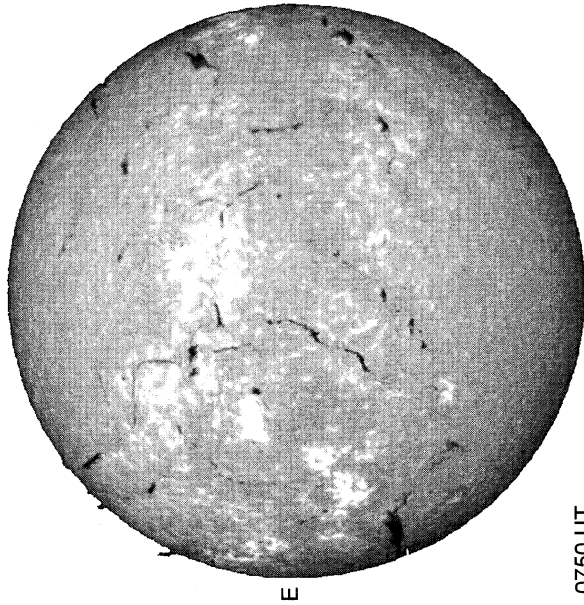
Delta Y = 13.1
Delta X = 9.6



15.87 -
16.79 UT

White = +7.5G
Black = -7.5G

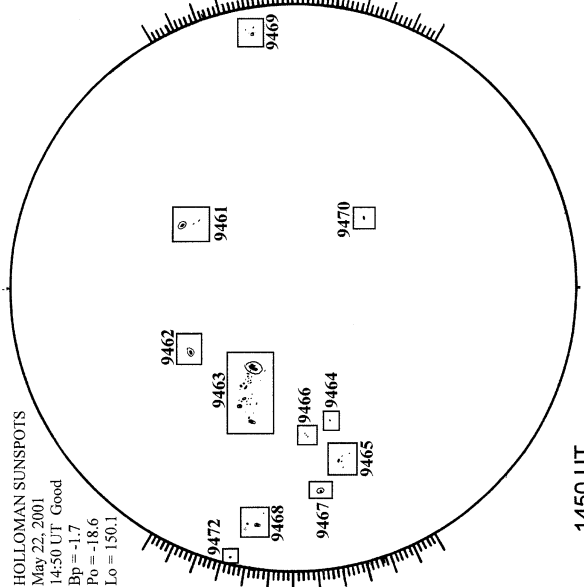
MEUDON H-ALPHA



0750 UT

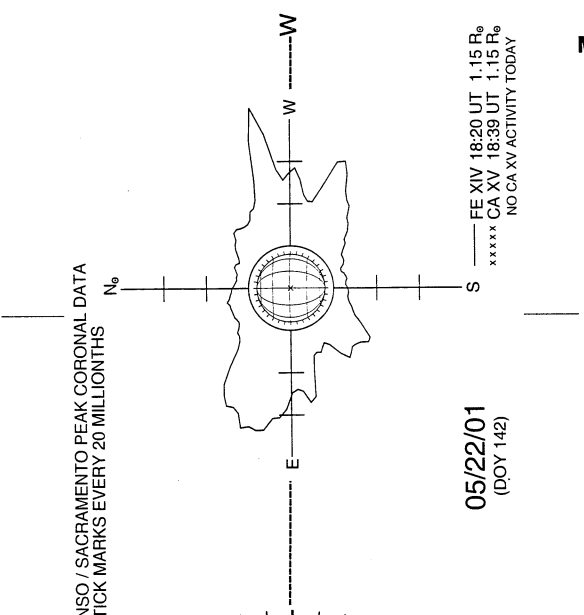
HOLLOMAN SUNSPOT

HOLLOMAN SUNSPOTS
May 22, 2001
14:50 UT Good
Bp = -1.7
Po = -18.6
Lo = 150.1



1450 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



05/22/01
(DOY 142)

FE XIV 18:20 UT 1.15 R_o
CA XV 18:39 UT 1.15 R_o
NO CA XV ACTIVITY TODAY

MAY 23, 2001 (P= -18.57, Bo = -1.73, Lo = 144.67)

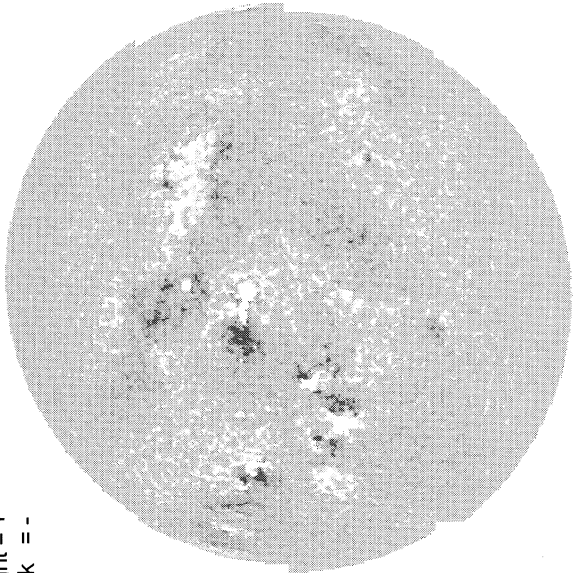
74
May 01

KITT PEAK MAGNETOGRAM

868.8 nm

Bright = +
Dark = -

N



1703 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

N

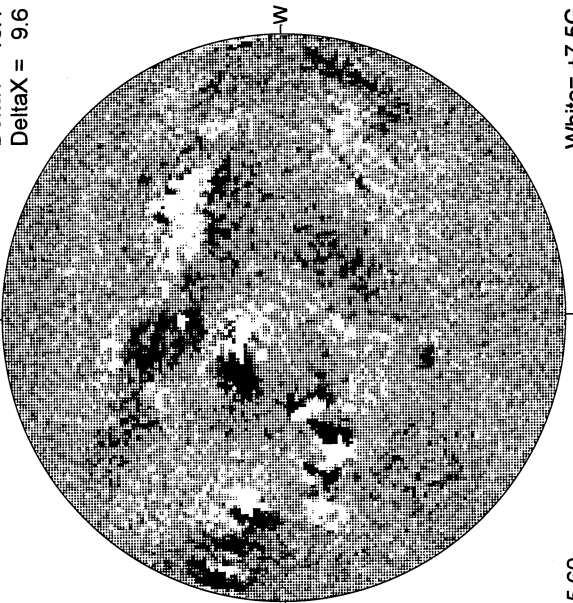


2241 UT

MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6

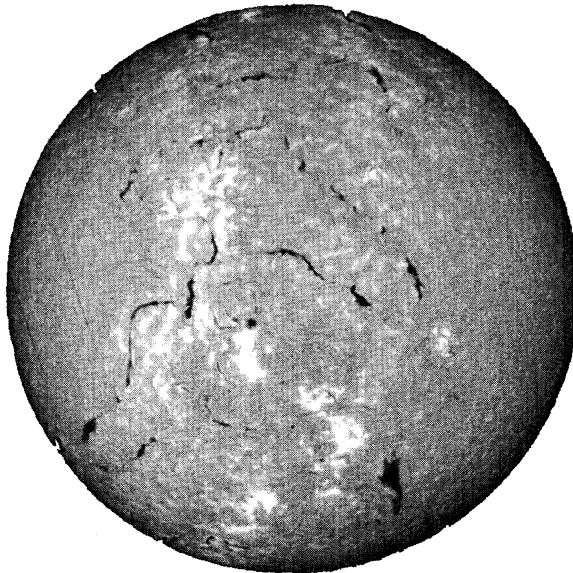
N



15.60 -
16.53 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

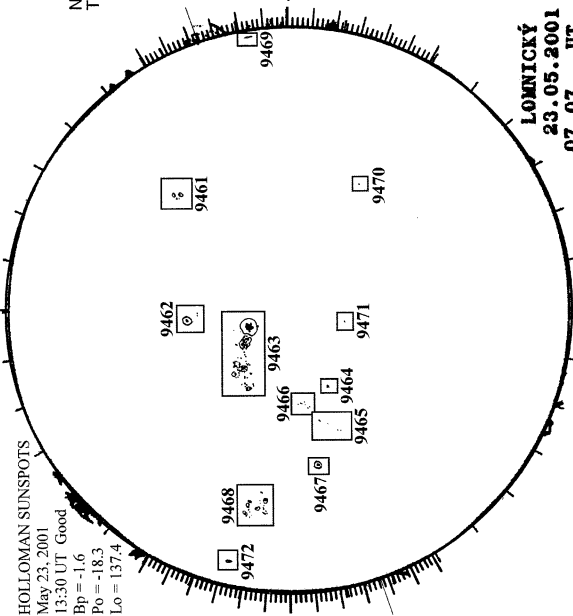


0724 UT

HOLLOMAN SUNSPOT

HOLLOMAN SUNSPOTS

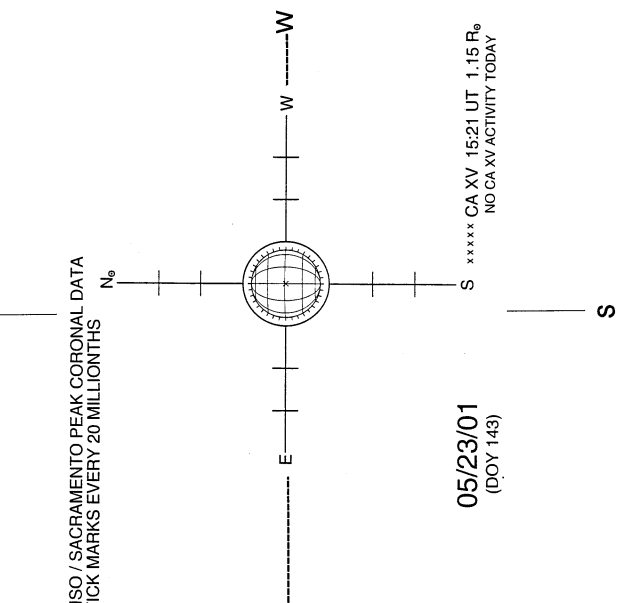
May 23, 2001
13:30 UT Good
Bp = -1.6
Po = -18.3
Lo = 137.4



1330 UT
0707 UT LOMN Prom S

LOMNICKY
23.05.2001
07.07 UT

SACRAMENTO PEAK CORONA (1.15 Radii)---



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

05/23/01
(DOY 143)

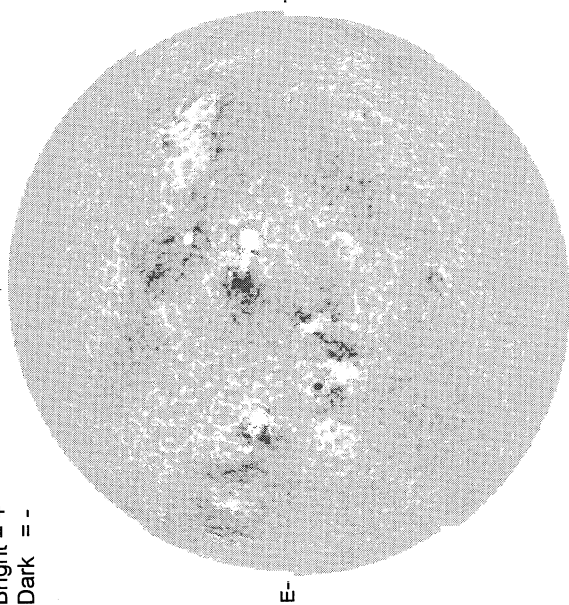
***** CA XV 15:21 UT 1.15 R_o
NO CA XV ACTIVITY TODAY

MAY 24, 2001 (P= -18.24, Bo = -1.61, Lo = 131.44)

KITT PEAK MAGNETOGRAM

868.8 nm

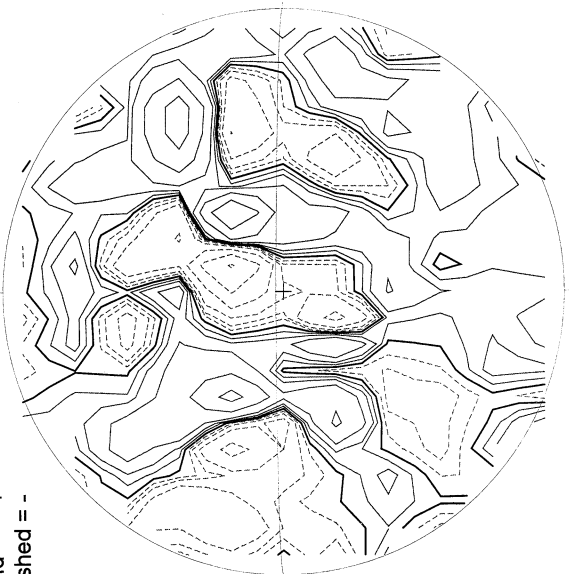
Bright = +
Dark = -



1436 UT

STANFORD MAGNETOGRAM

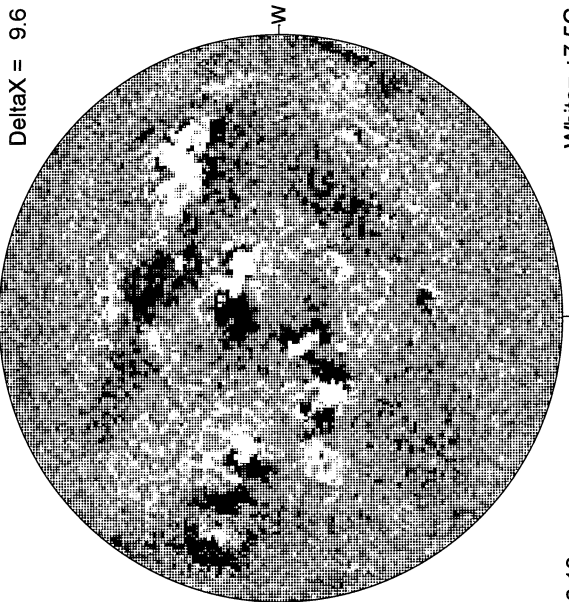
Solid = +
Dashed = -



2153 UT

MT. WILSON MAGNETOGRAM

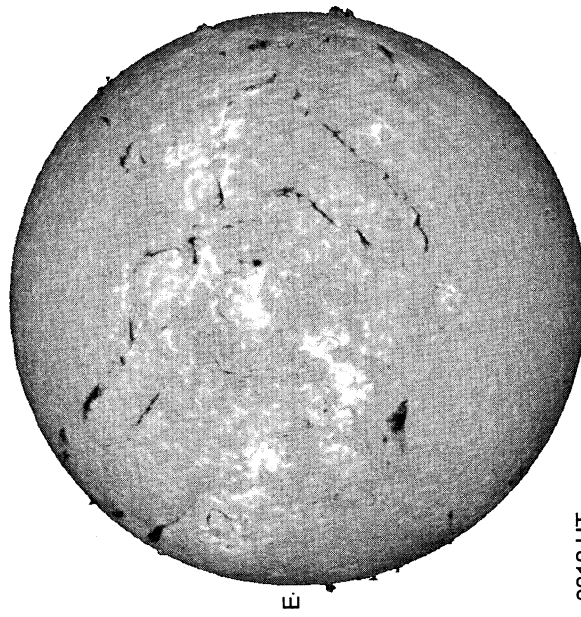
Delta Y = 13.1
Delta X = 9.6



16.13 -
17.05 UT

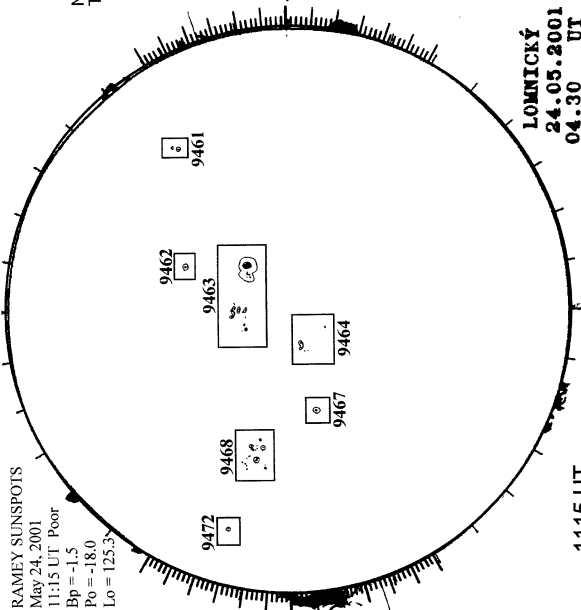
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



0818 UT

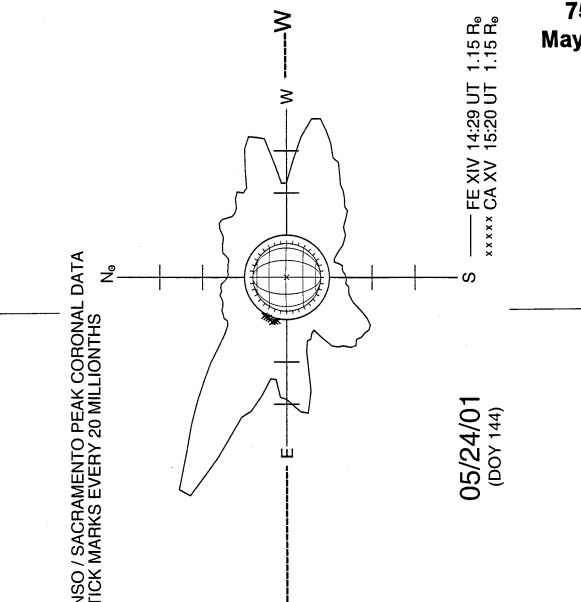
RAMEY SUNSPOT



1115 UT
0430 UT LOMN Prom S

RAMEY SUNSPOTS
May 24, 2001
11:15 UT Poor
Bp = -1.5
Po = -18.0
Lo = 125.3

SACRAMENTO PEAK CORONA (1.15 Radii)----



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

05/24/01
(DOY 144)

FE XIV 14:29 UT 1.15 R_o
CA XV 15:20 UT 1.15 R_o

LOMNICKÝ
24.05.2001
04.30 UT

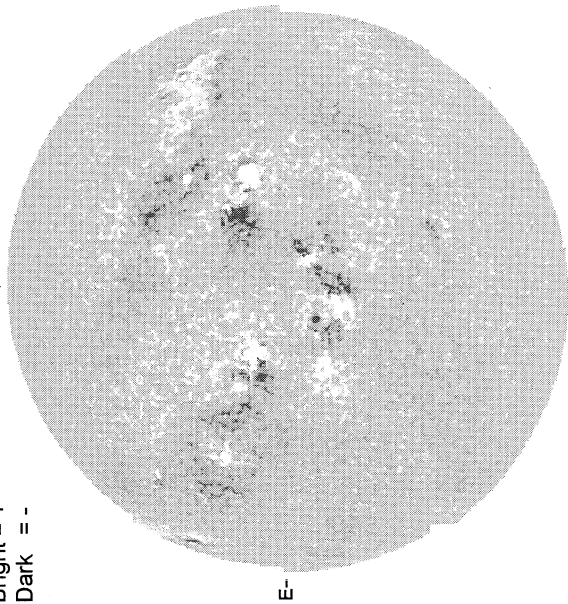
76
May 01

MAY 25, 2001 (P= -17.91, Bo = -1.49, Lo = 118.21)

KITT PEAK MAGNETOGRAM

868.8 nm

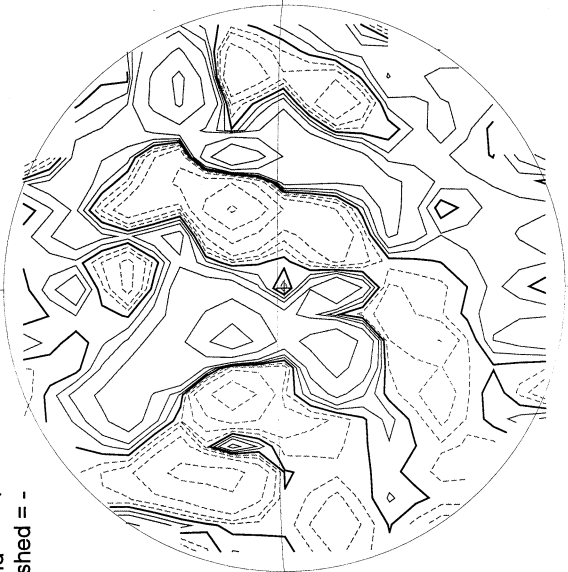
Bright = +
Dark = -



1420 UT

STANFORD MAGNETOGRAM

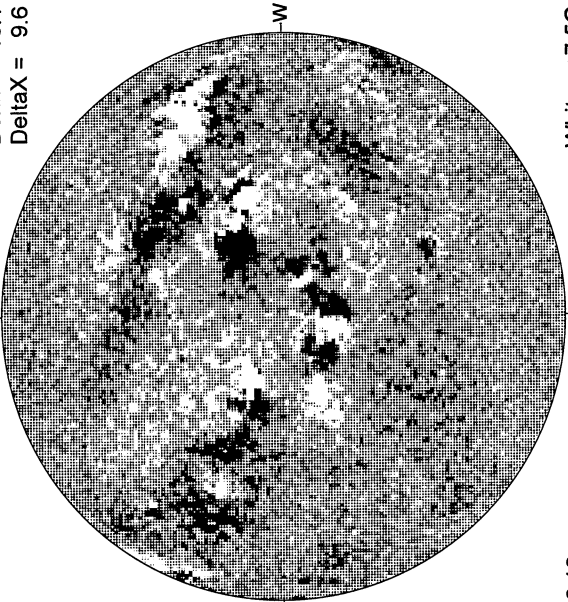
Solid = +
Dashed = -



2338 UT

MT. WILSON MAGNETOGRAM

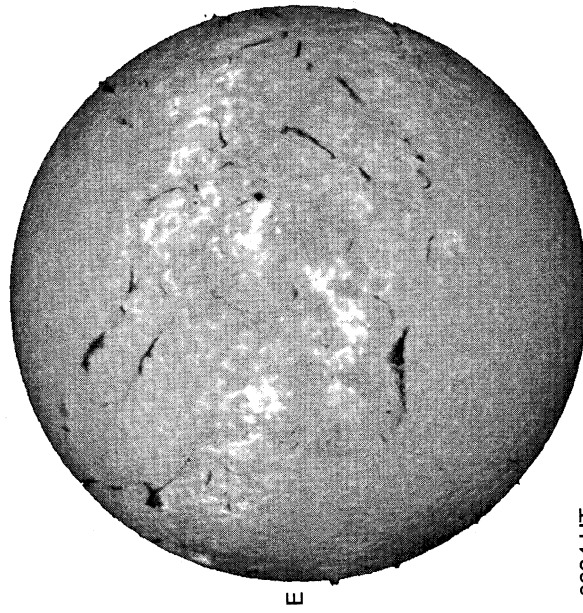
Delta Y = 13.1
Delta X = 9.6



16.18 -
17.11 UT

White = +7.5G
Black = -7.5G

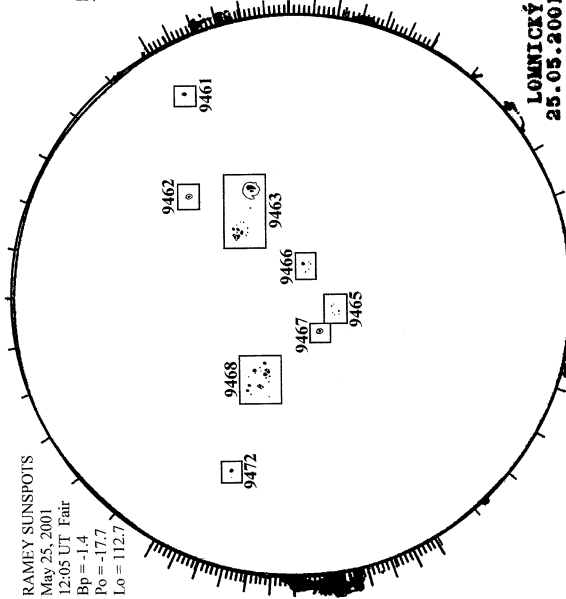
MEUDON H-ALPHA



0634 UT

RAMEY SUNSPOT

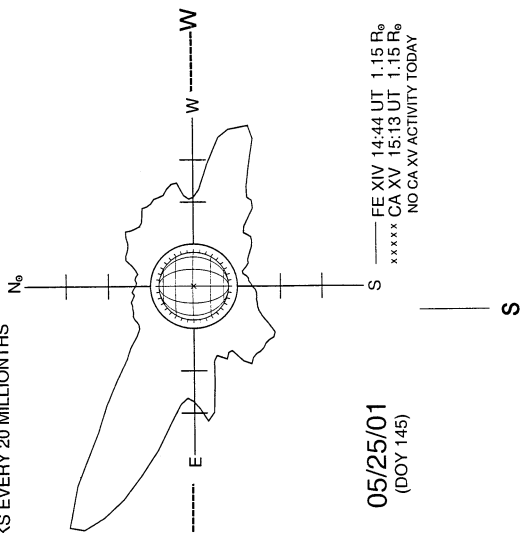
RAMEY SUNSPOTS
May 25, 2001
12:05 UT Fair
Bp = -1.4
Po = -17.7
Lo = 112.7



1205 UT
0522 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)-----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

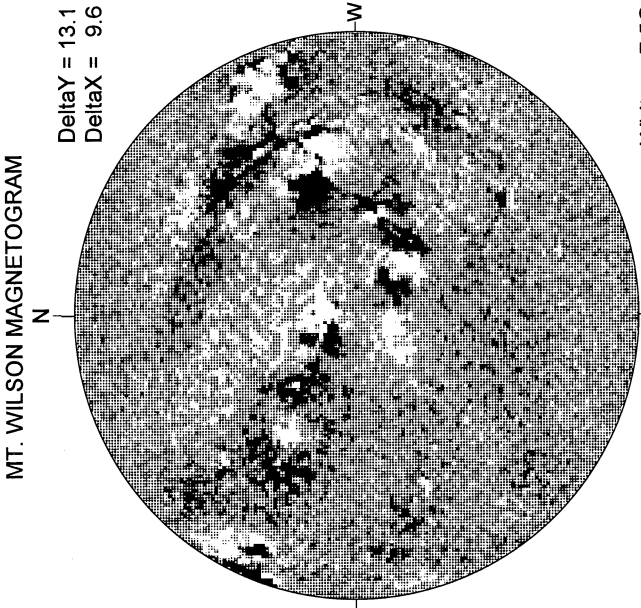
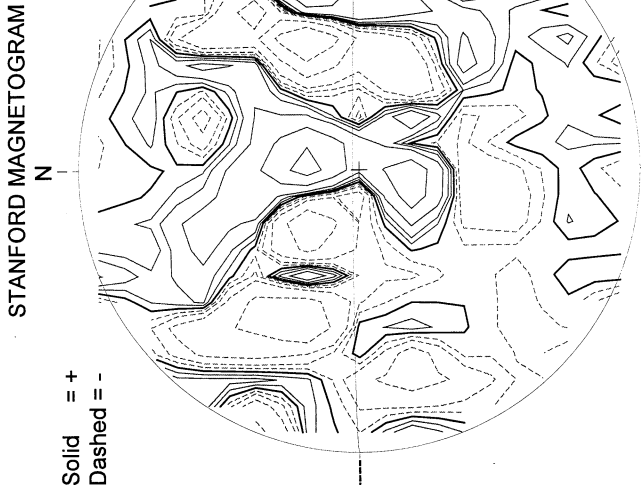
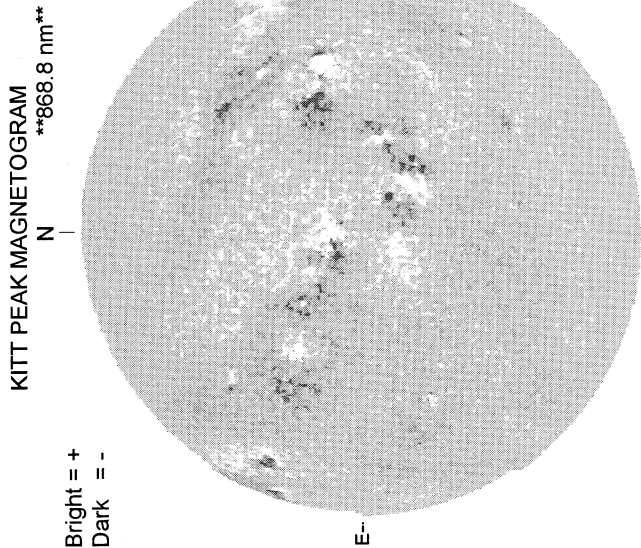


05/25/01
(DOY 145)

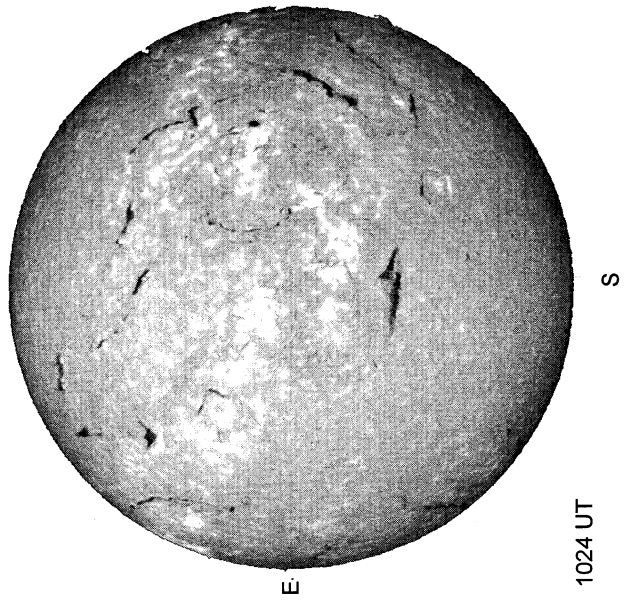
LOWNICKY
25.05.2001
05.22 UT

FE XIV 14:44 UT 1.15 R_sun
CA XV 15:13 UT 1.15 R_sun
NO CA XV ACTIVITY TODAY

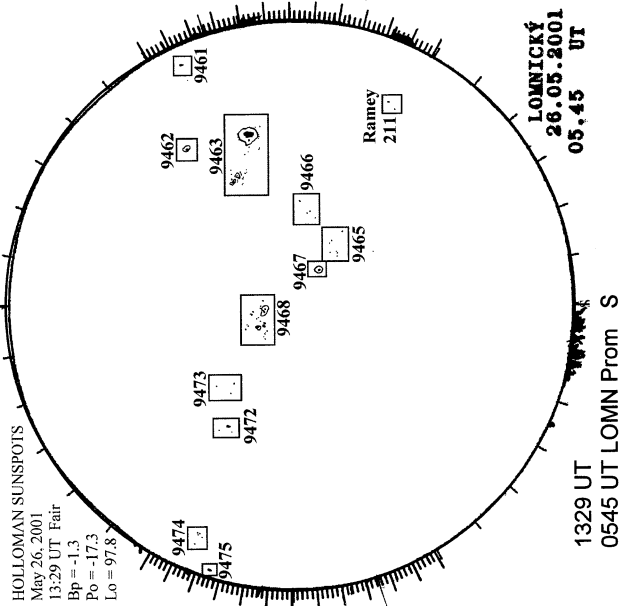
MAY 26, 2001 (P= -17.57, Bo = -1.37, Lo = 104.98)



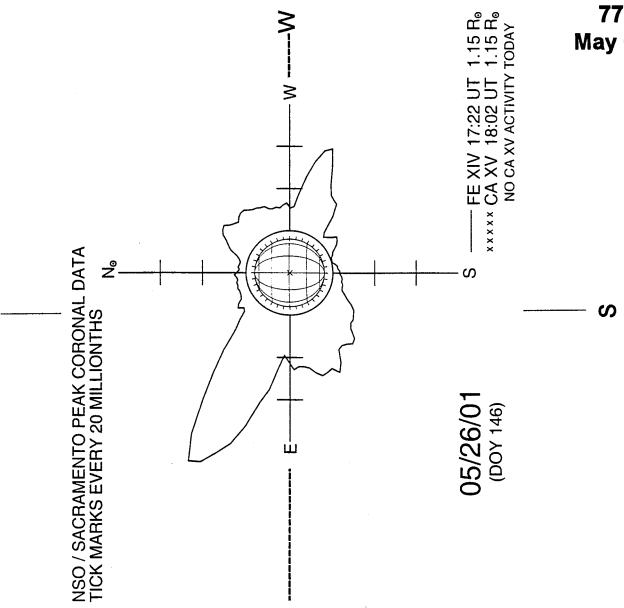
MEUDON H-ALPHA



HOLLOMAN SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)----



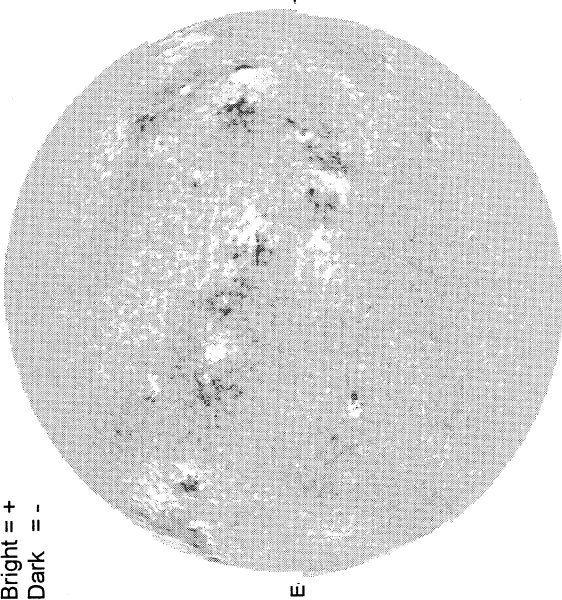
78
May 01

MAY 27, 2001 (P = -17.23, Bo = -1.25, Lo = 91.75)

KITT PEAK MAGNETOGRAM

868.8 nm

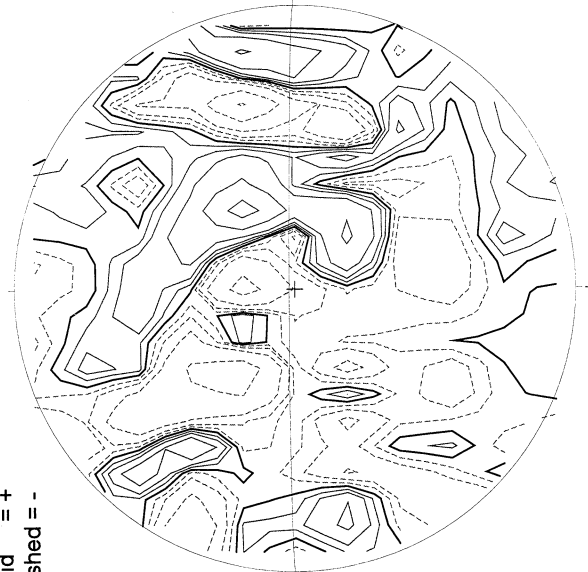
Bright = +
Dark = -



1427 UT

STANFORD MAGNETOGRAM

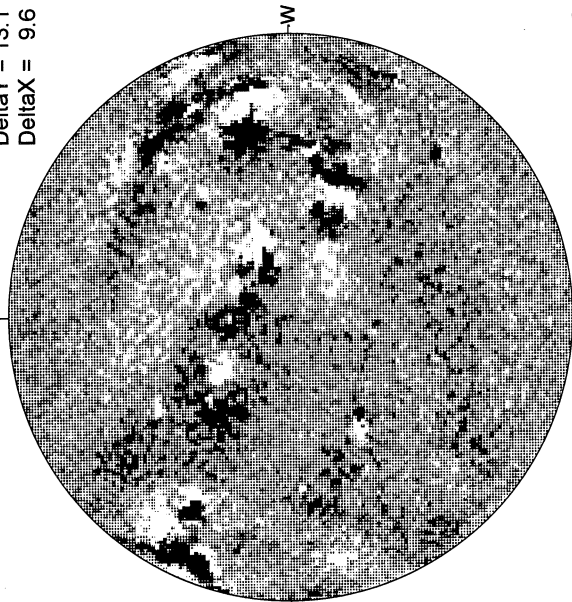
Solid = +
Dashed = -



2101 UT

MT. WILSON MAGNETOGRAM

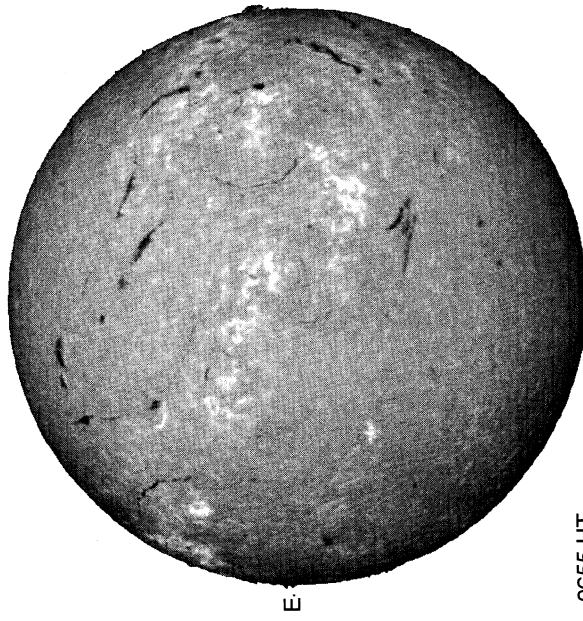
Delta Y = 13.1
Delta X = 9.6



18.12 -
19.04 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

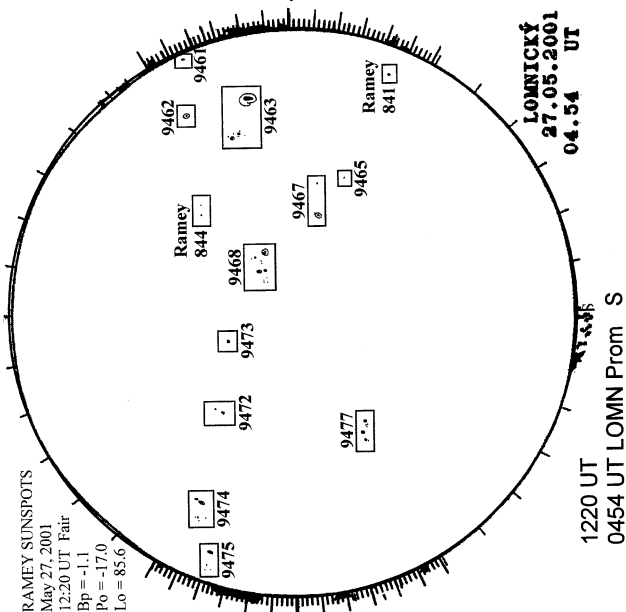


0655 UT

RAMEY SUNSPOT

RAMEY SUNSPOTS

May 27, 2001
12:20 UT Fair
Bp = -1.1
Po = -17.0
Lo = 85.6



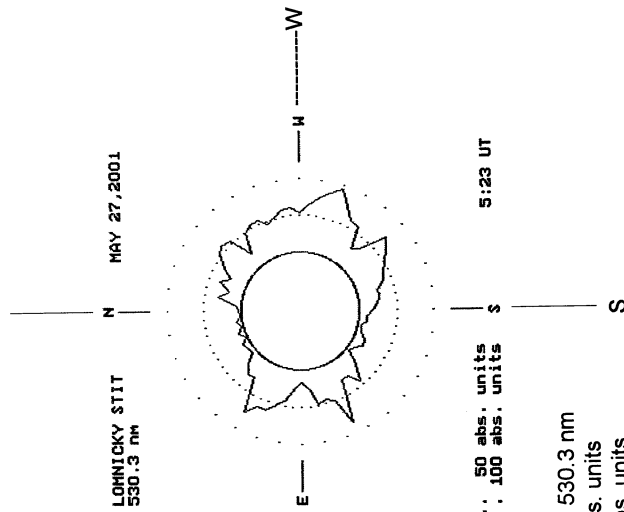
1220 UT
0454 UT LOMN Prom S

LOMNICKY
27.05.2001
04.54 UT

... 50 abs. units
... 100 abs. units

0523 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

LOMNICKY PEAK CORONA (1.04 Radii)---



... 50 abs. units
... 100 abs. units

5:23 UT

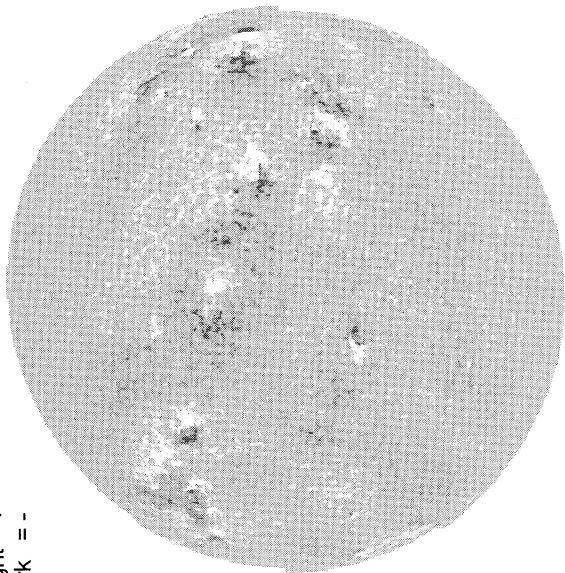
MAY 28, 2001 (P= -16.88, Bo = -1.13, Lo = 78.52)

KITT PEAK MAGNETOGRAM

868.8 nm

N

Bright = +
Dark = -

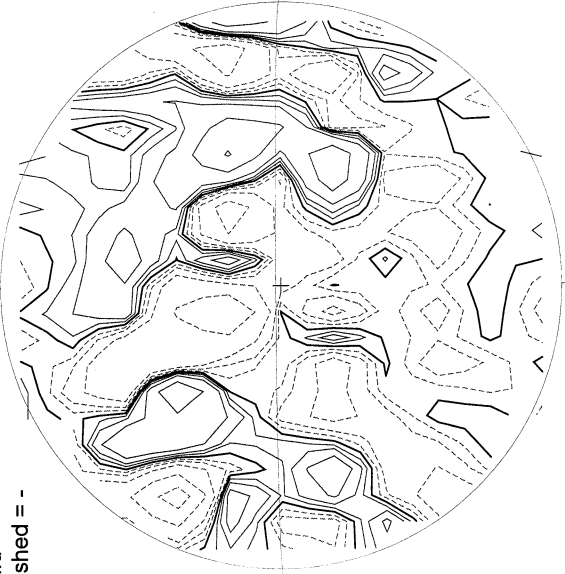


1426 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

N

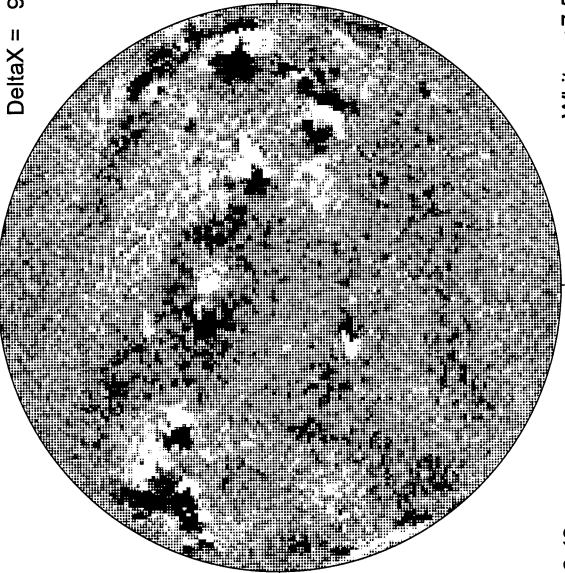


2050 UT

MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6

N

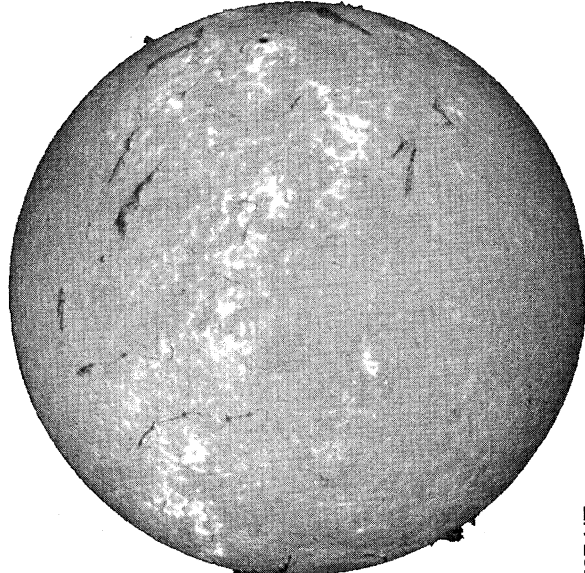


16.43 -
17.35 UT

White= +7.5G
Black = -7.5G

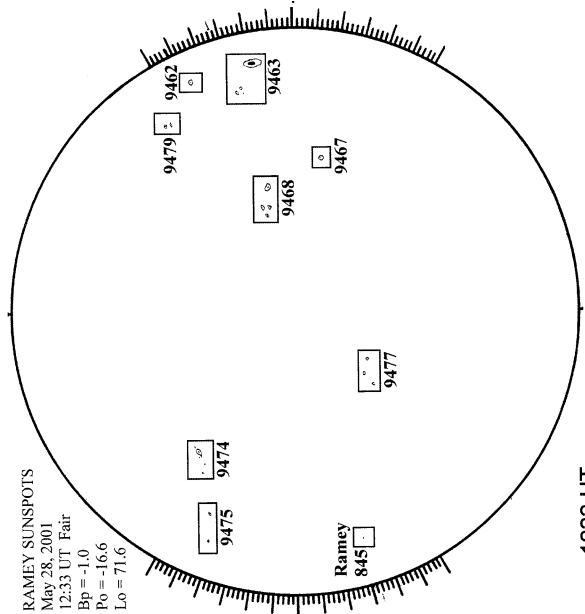
MEUDON H-ALPHA

LOMNICKY PEAK CORONA (1.04 Radii)---



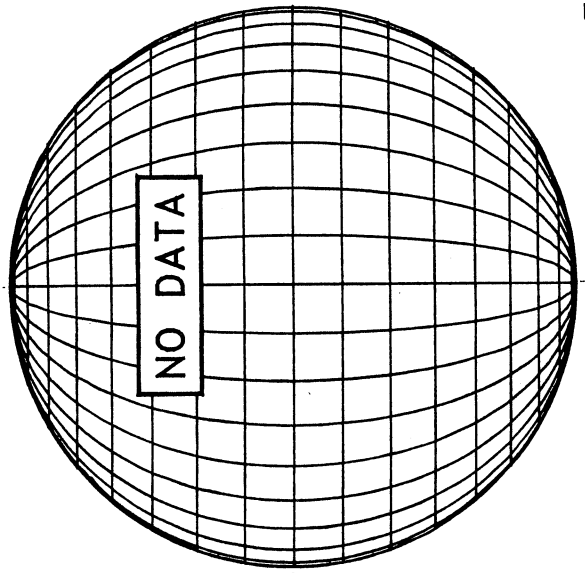
0727 UT

RAMEY SUNSPOT



1233 UT

RAMEY SUNSPOTS
May 28, 2001
12:33 UT Fair
Bp = -1.0
Po = -16.6
Lo = 71.6



S

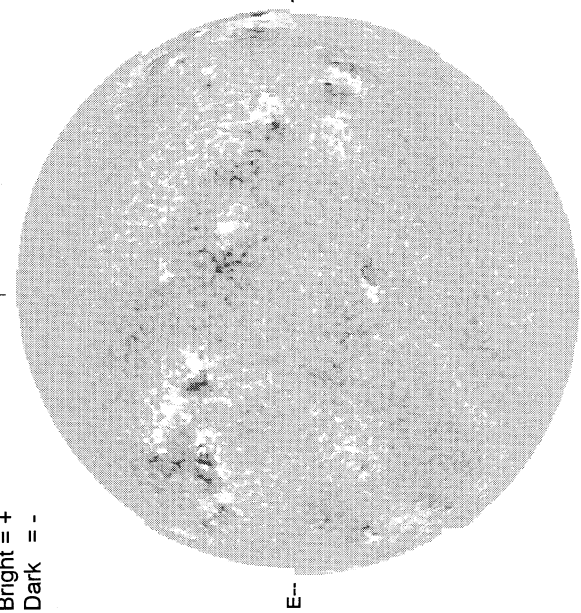
80
May 01

MAY 29, 2001 (P= -16.52, Bo = -1.02, Lo = 65.29)

KITT PEAK MAGNETOGRAM

868.8 nm

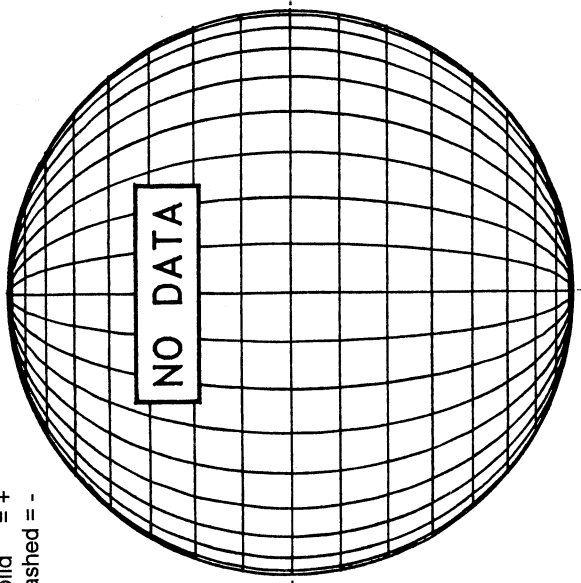
Bright = +
Dark = -



1533 UT

STANFORD MAGNETOGRAM

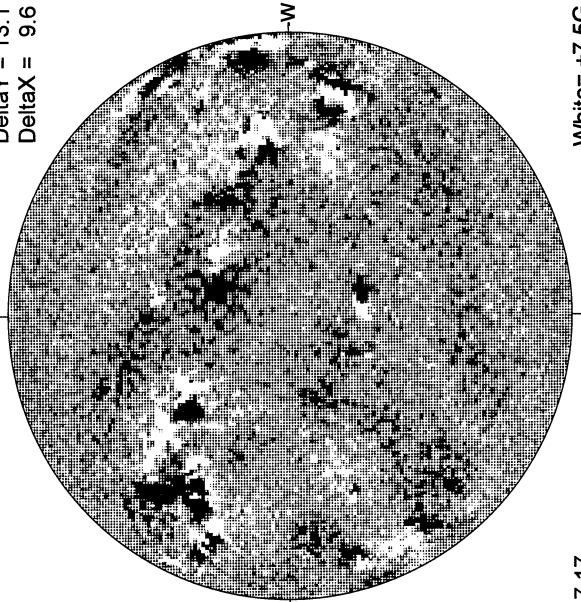
Solid = +
Dashed = -



NO DATA

MT. WILSON MAGNETOGRAM

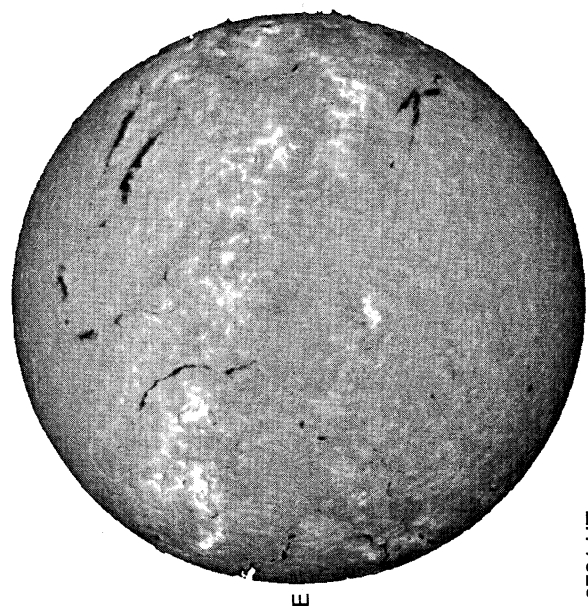
Delta Y = 13.1
Delta X = 9.6



17.17 -
18.10 UT

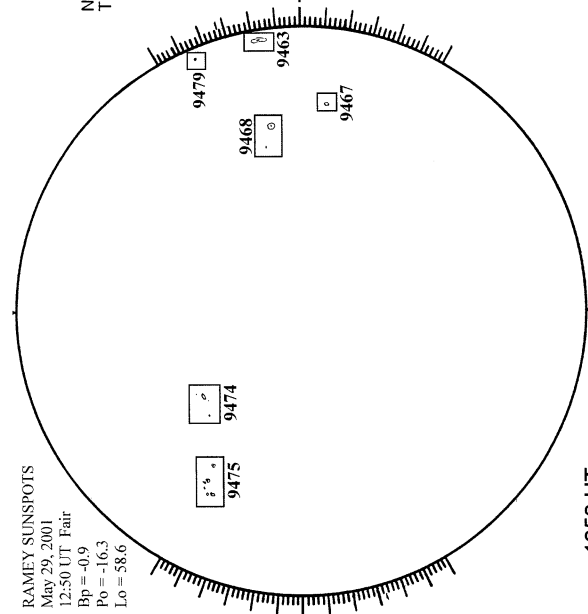
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



0701 UT

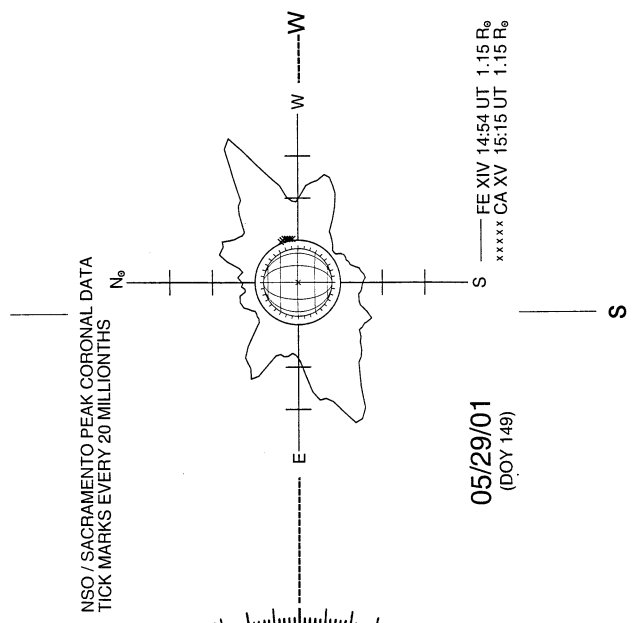
RAMEY SUNSPOT



1250 UT

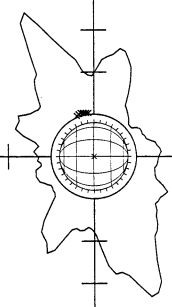
RAMEY SUNSPOTS
May 29, 2001
12:50 UT Fair
Bp = -0.9
Po = -16.3
Lo = 58.6

SACRAMENTO PEAK CORONA (1.15 Radii)-----



05/29/01
(DOY 149)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

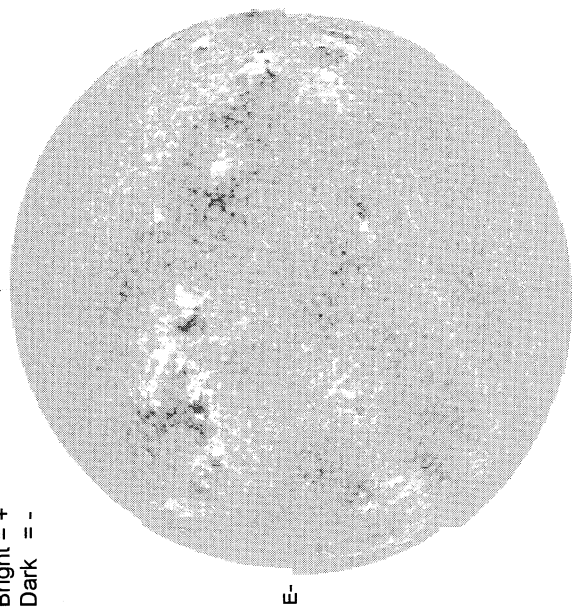


MAY 30, 2001 (P= -16.16, Bo = -0.90, Lo = 52.06)

KITT PEAK MAGNETOGRAM

868.8 nm

Bright = +
Dark = -



1609 UT

STANFORD MAGNETOGRAM

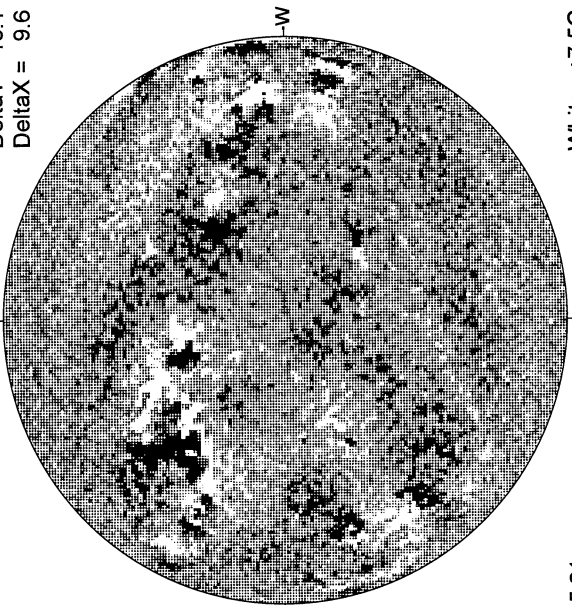
Solid = +
Dashed = -



2336 UT

MT. WILSON MAGNETOGRAM

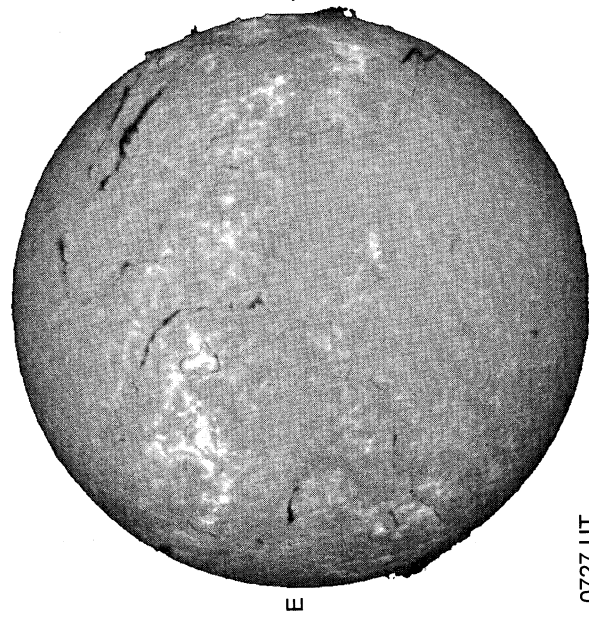
Delta Y = 13.1
Delta X = 9.6



15.81 -
16.73 UT

White = +7.5G
Black = -7.5G

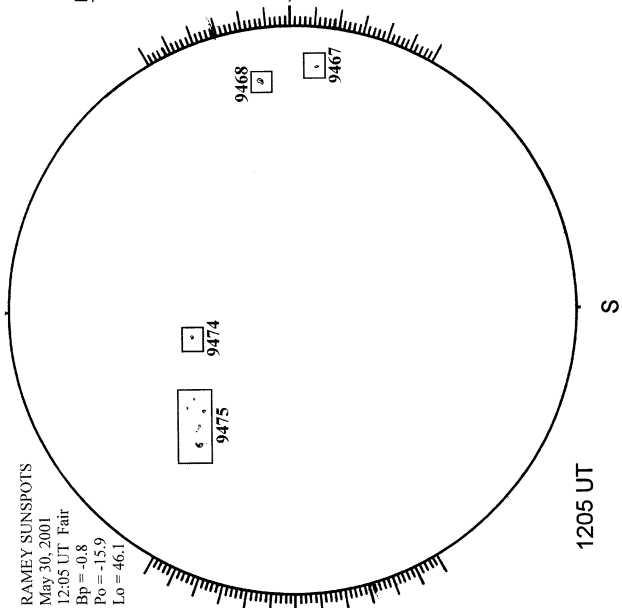
MEUDON H-ALPHA



0727 UT

RAMEY SUNSPOT

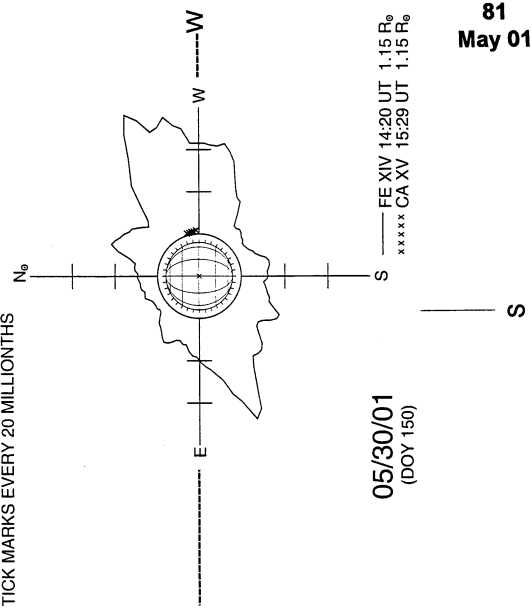
RAMEY SUNSPOTS
May 30, 2001
12:05 UT Fair
Bp = -0.8
Po = -15.9
Lo = 46.1



1205 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

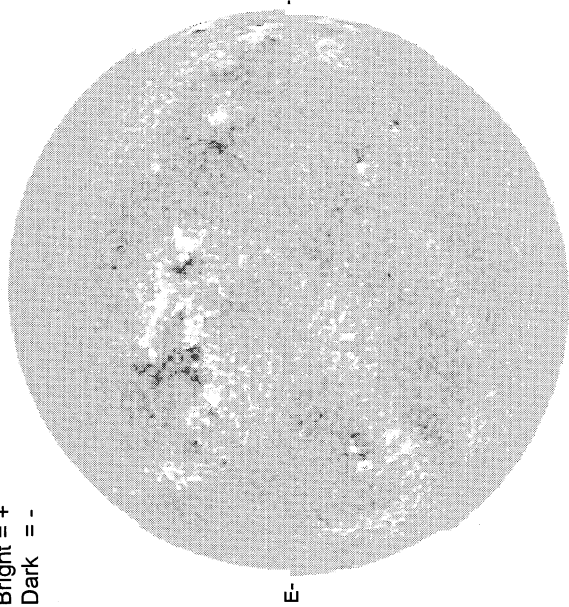
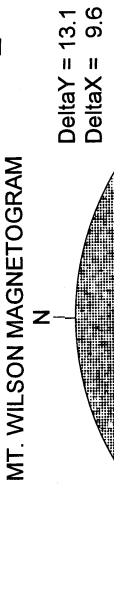
NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



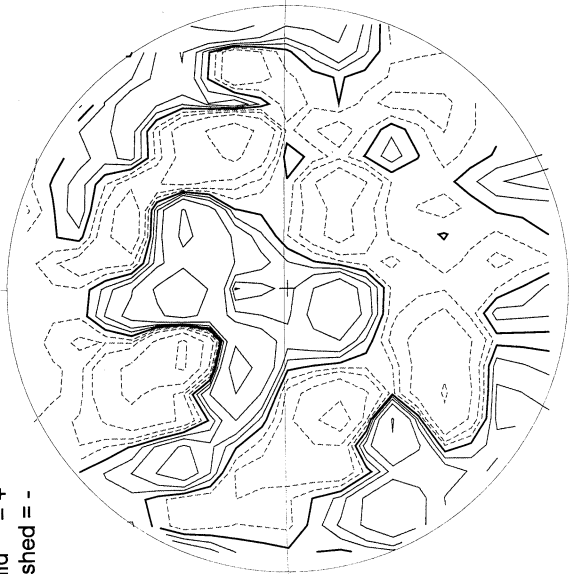
05/30/01
(DOY 150)

----- FE XIV 14:20 UT 1.15 R_o
xxxxx CA XV 15:29 UT 1.15 R_o

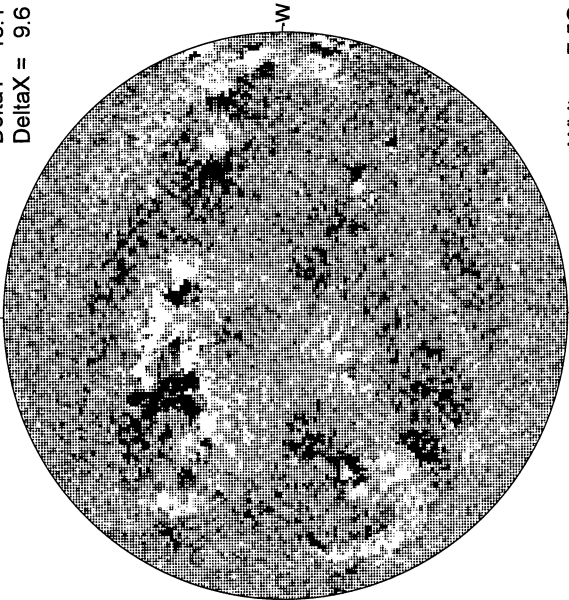
MAY 31, 2001 (P= -15.79, Bo = -0.77, Lo = 38.82)



1541 UT



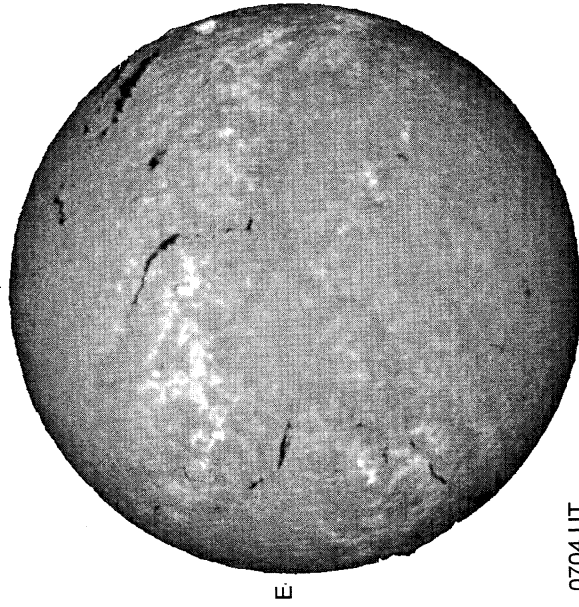
2137 UT



15.79 -
16.71 UT

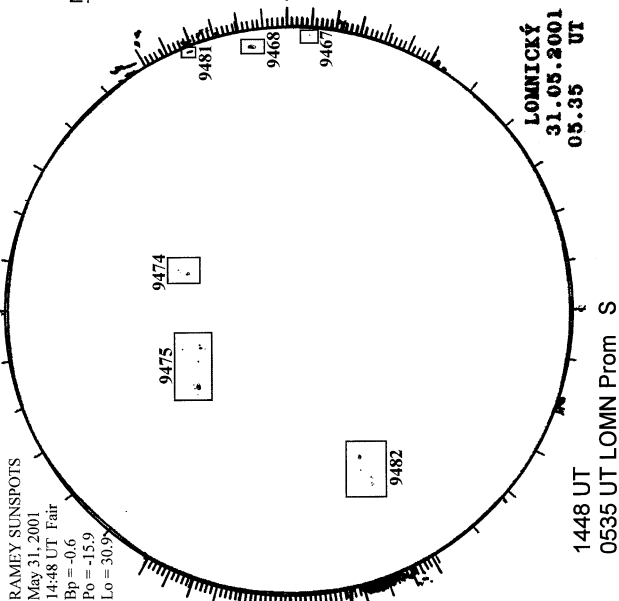
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

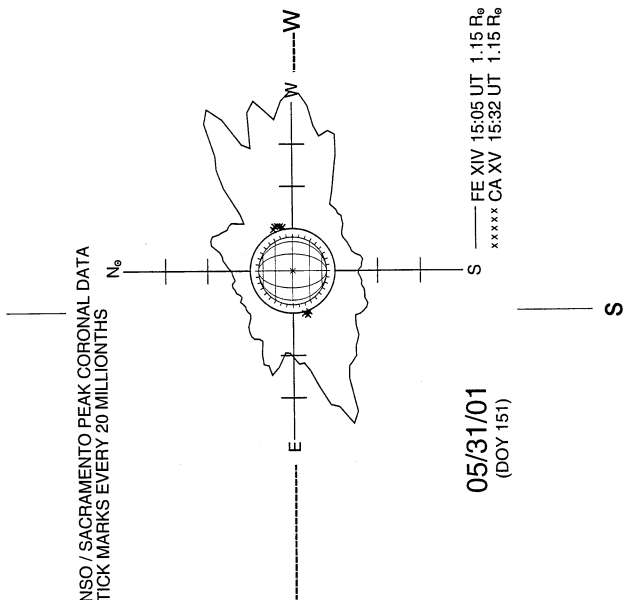


0704 UT

HOLLOMAN SUNSPOT



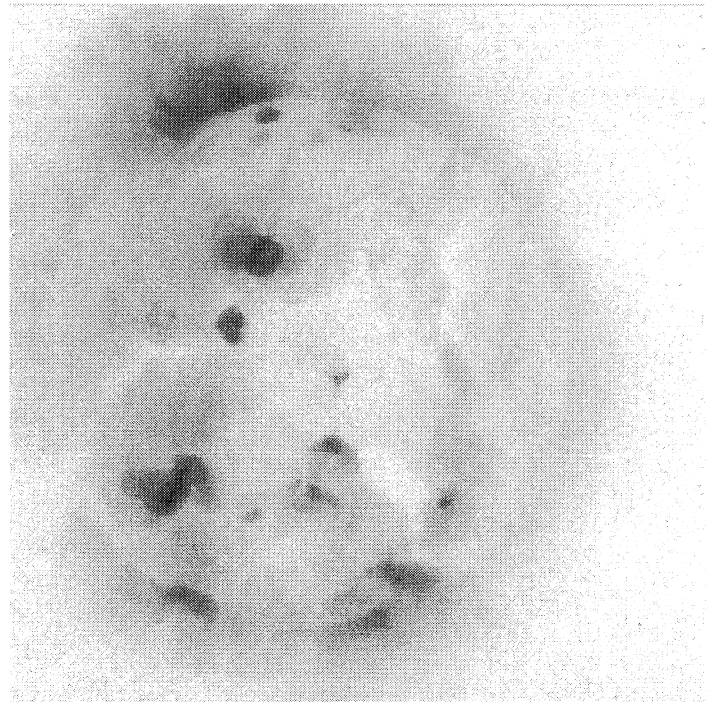
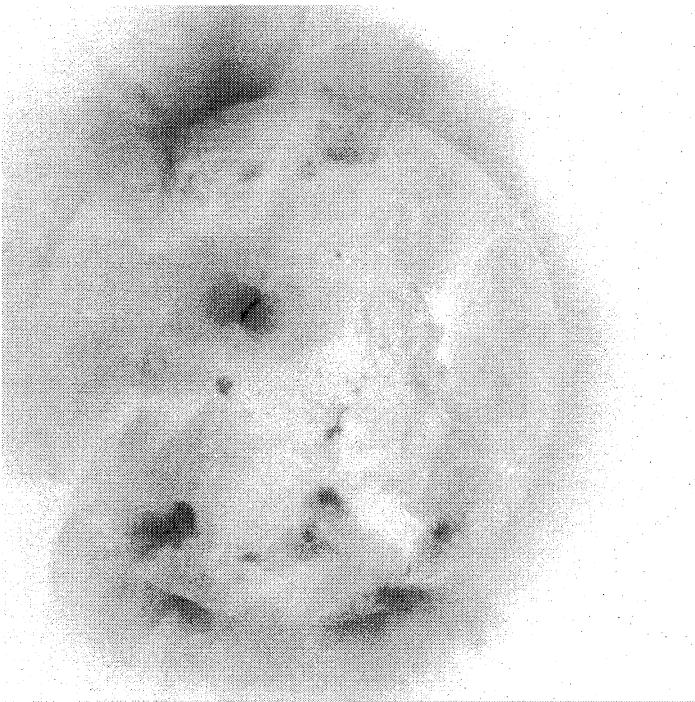
SACRAMENTO PEAK CORONA (1.15 Radii)----



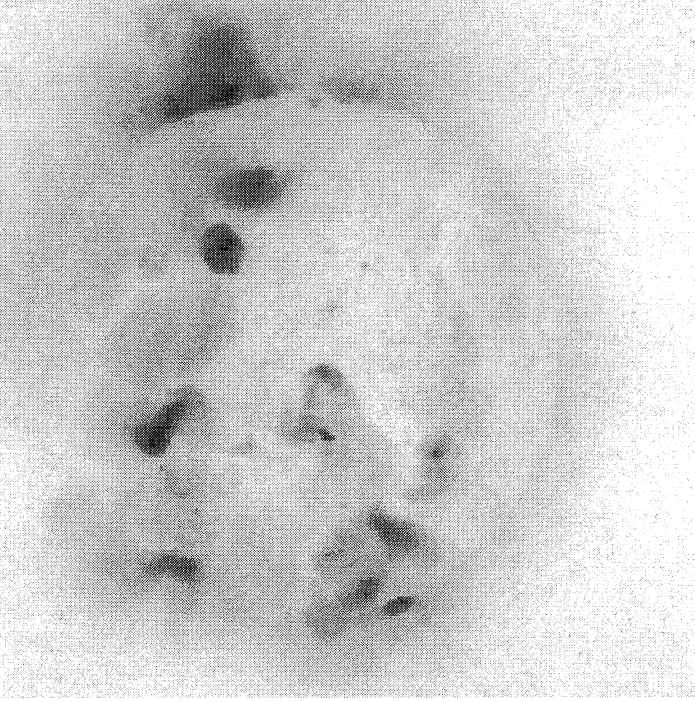
YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

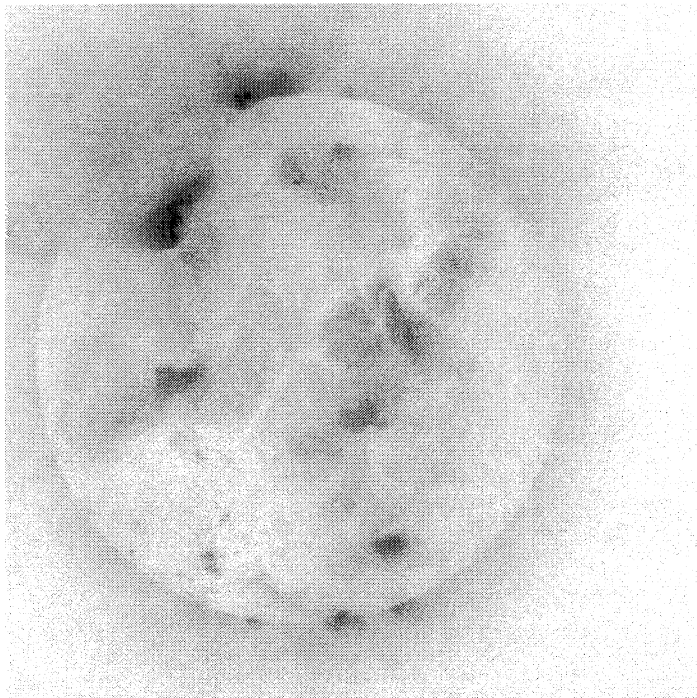
May
2001

Day 1 Day 3
12:10:51 UT 12:04:54 UT



Day 2 Day 4
10:20:54 UT 12:23:22 UT





YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

May
2001

Day 5 Day 7
07:38:16 UT 12:11:51 UT

Day 6 Day 8
13:17:16 UT 12:12:33 UT

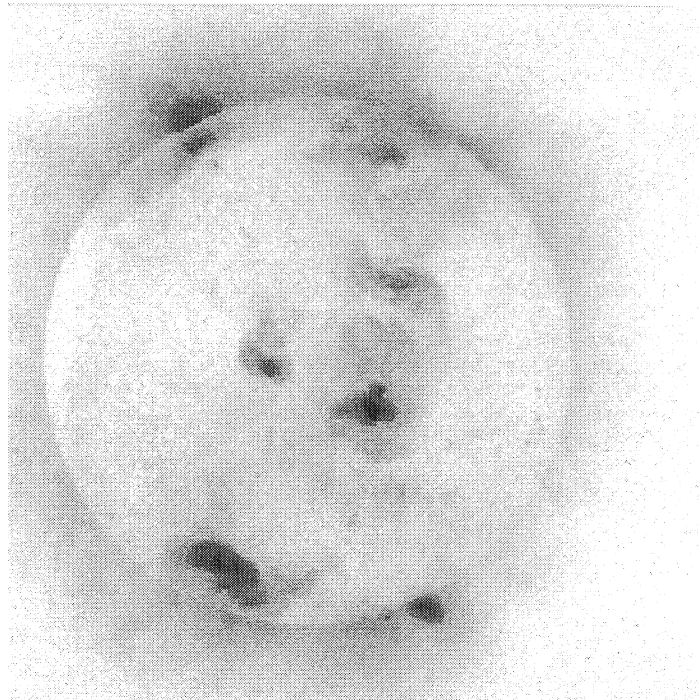
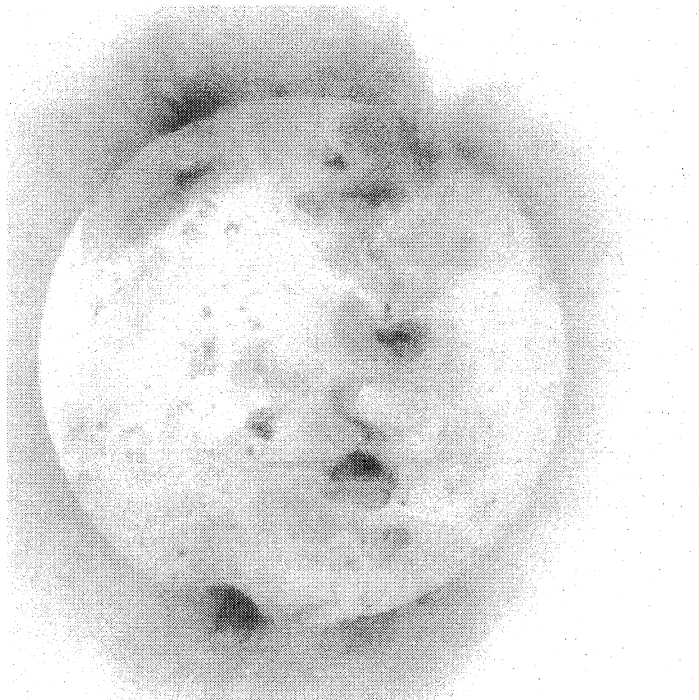
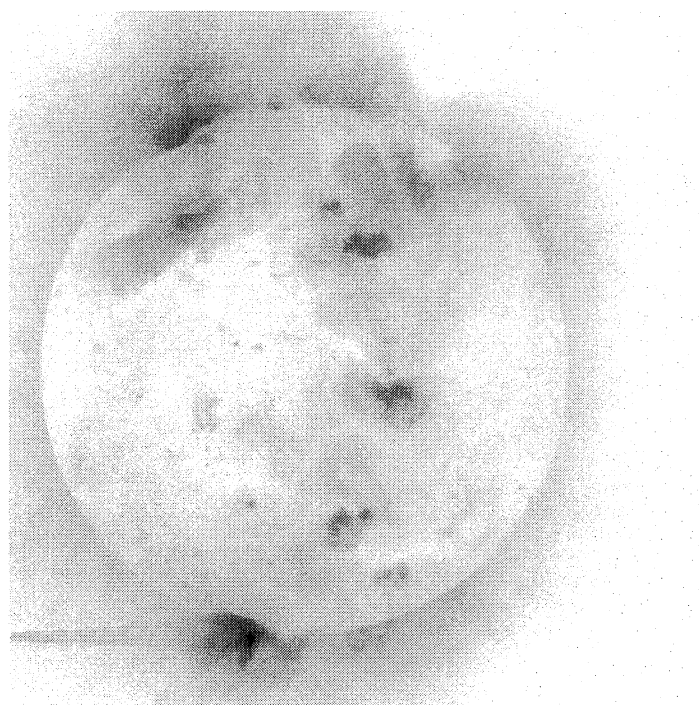


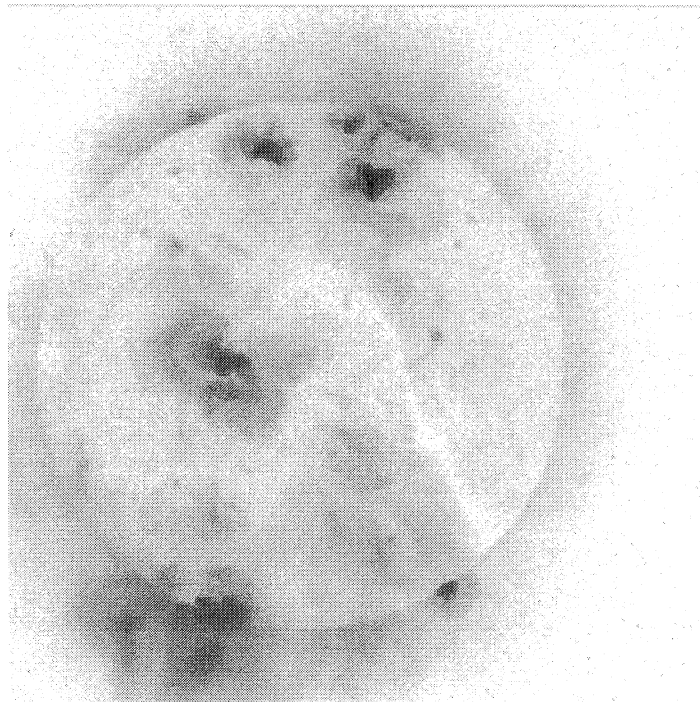
YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

May
2001

Day 9 Day 11
11:56:53 UT 11:58:31 UT

Day 10 Day 12
16:38:27 UT 12:36:36 UT



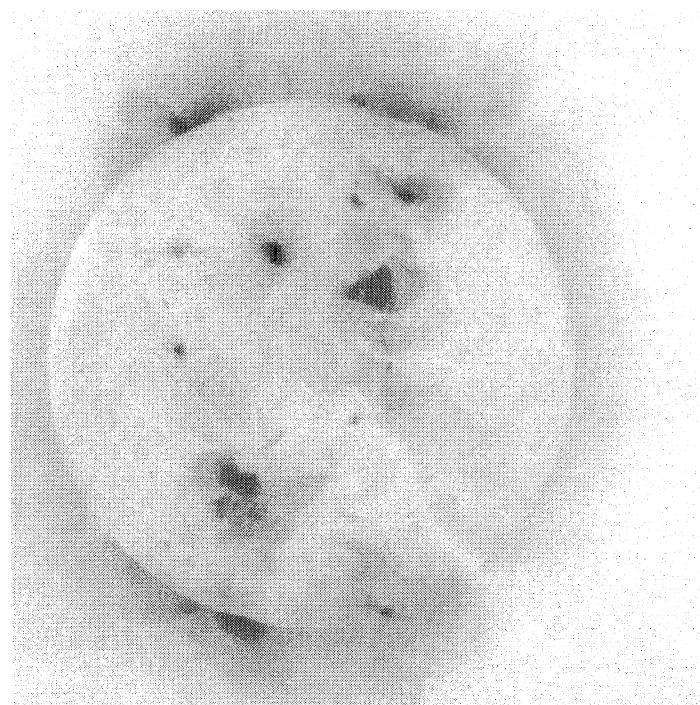
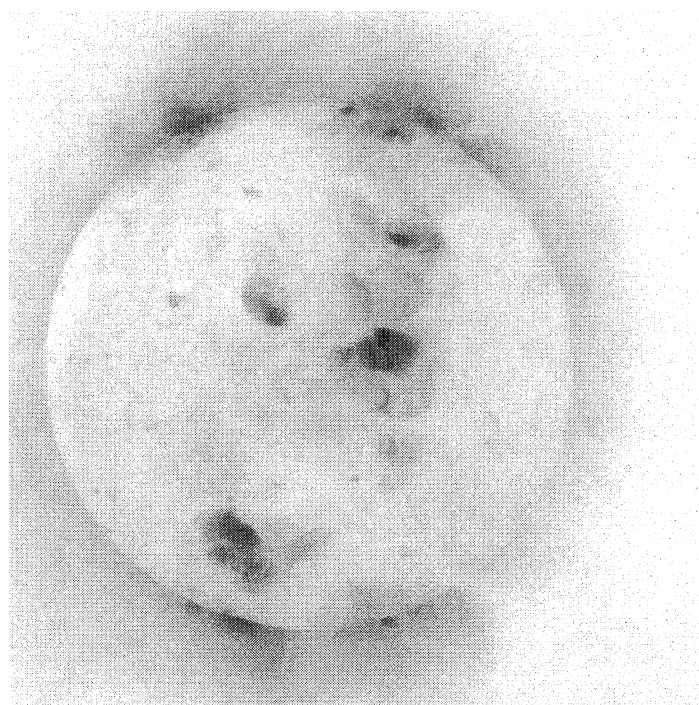


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

May
2001

Day 13 Day 15
11:02:32 UT 12:01:08 UT

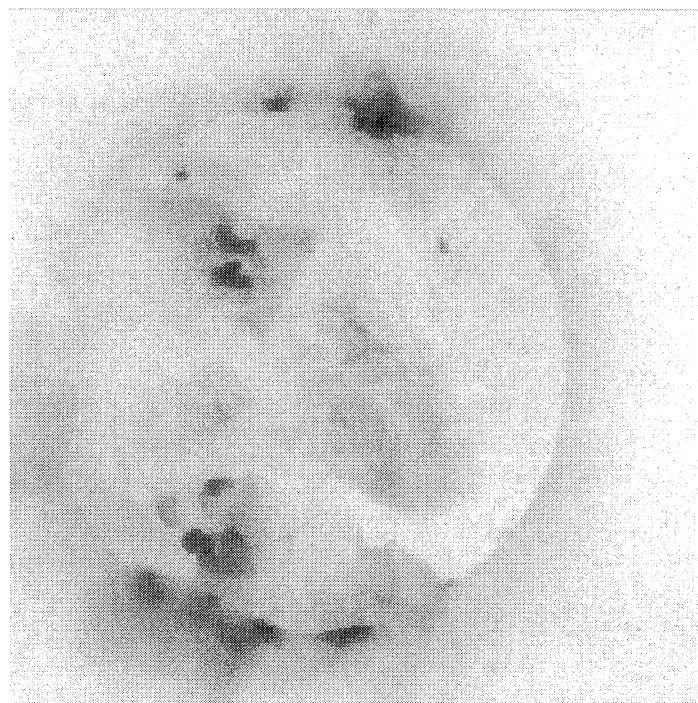
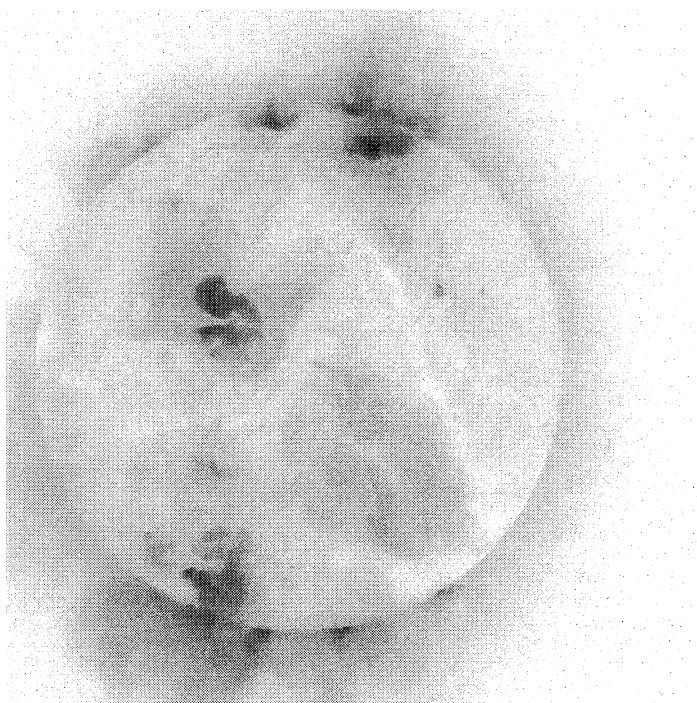
Day 14 Day 16
11:00:34 UT 11:59:32 UT



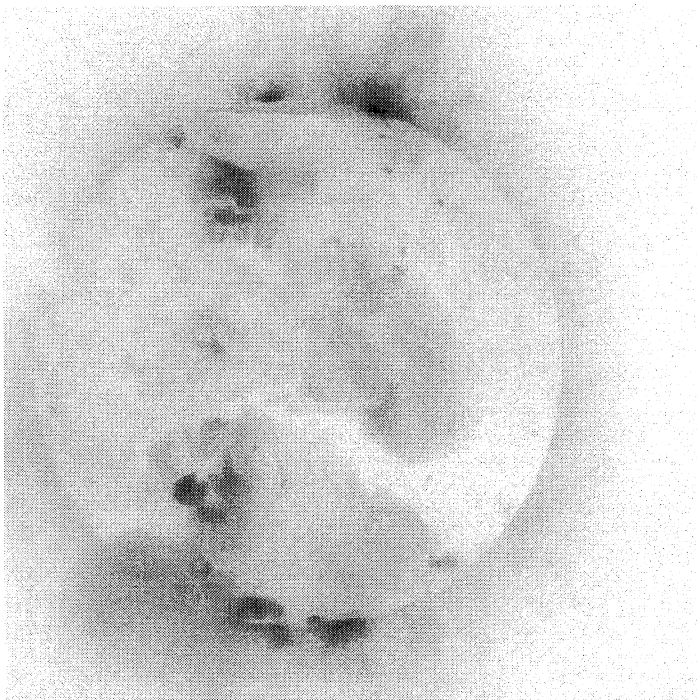
YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

May
2001

Day 17 Day 19
11:55:47 UT 11:55:41 UT



Day 18 Day 20
11:51:47 UT 11:48:21 UT

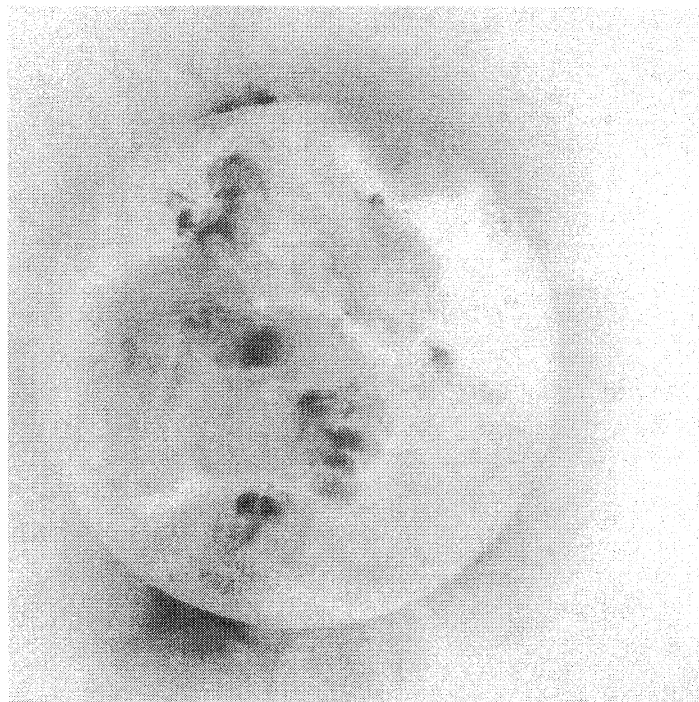
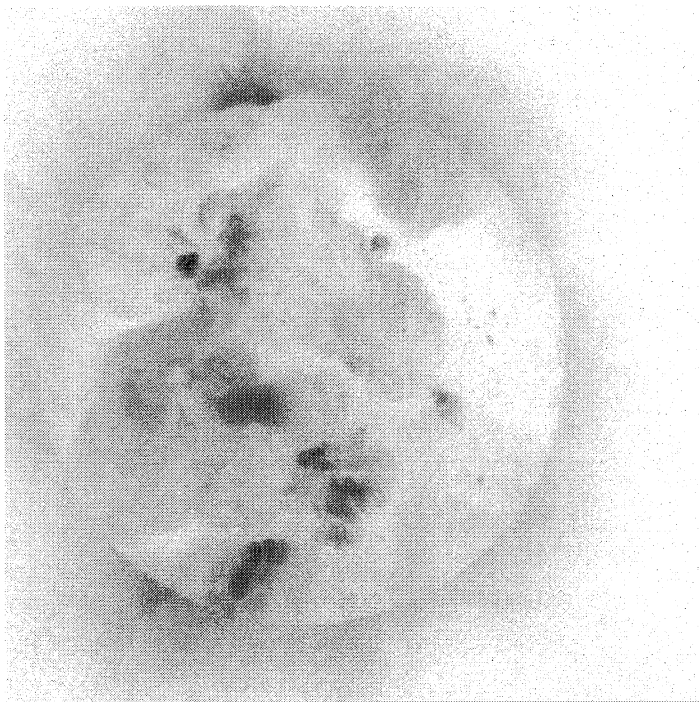
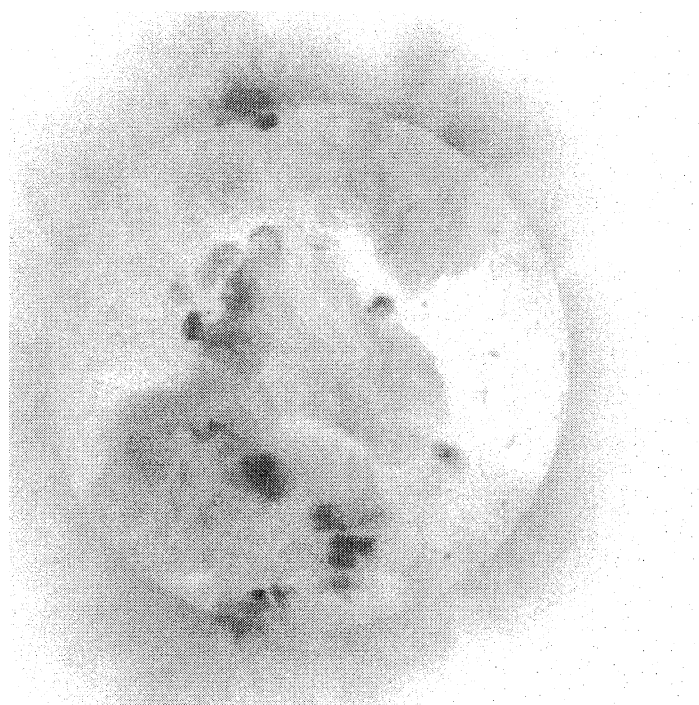
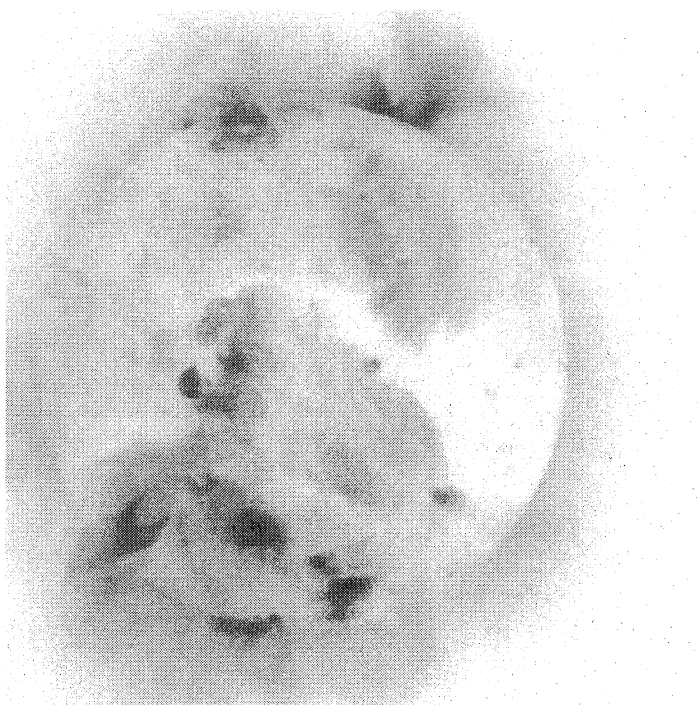


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

May
2001

Day 21
12:41:32 UT

Day 23
12:29:06 UT



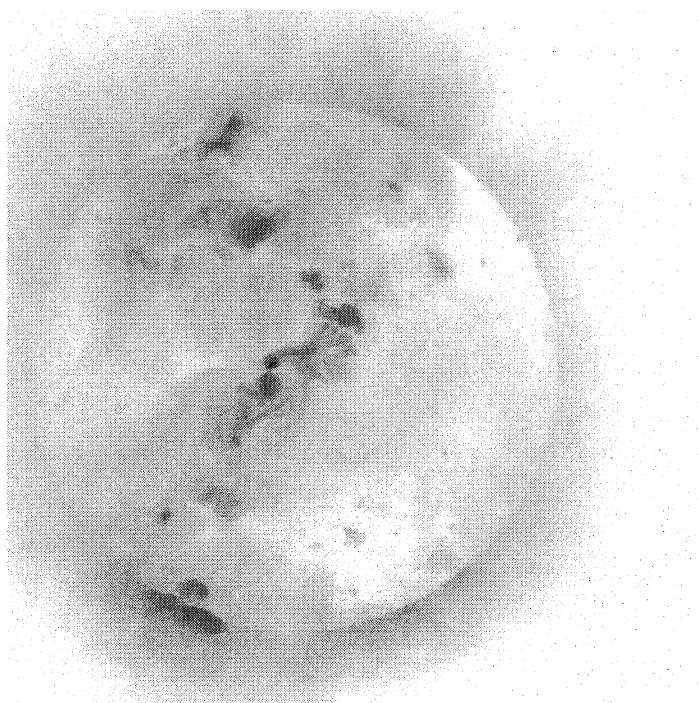
Day 22
12:29:58 UT

Day 24
11:55:18 UT

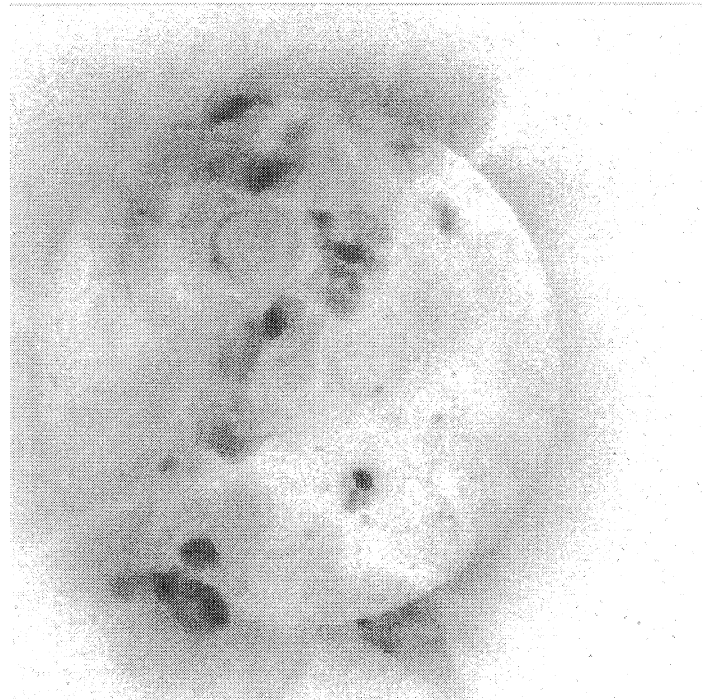
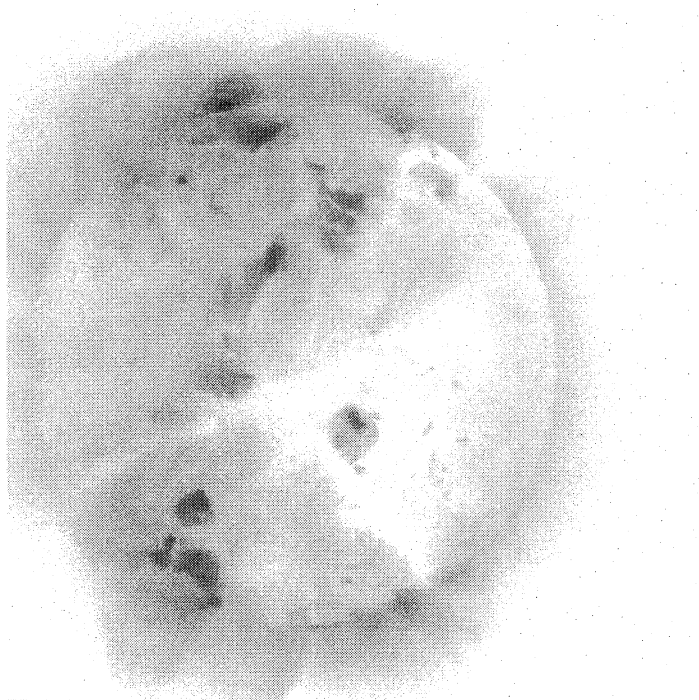
YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

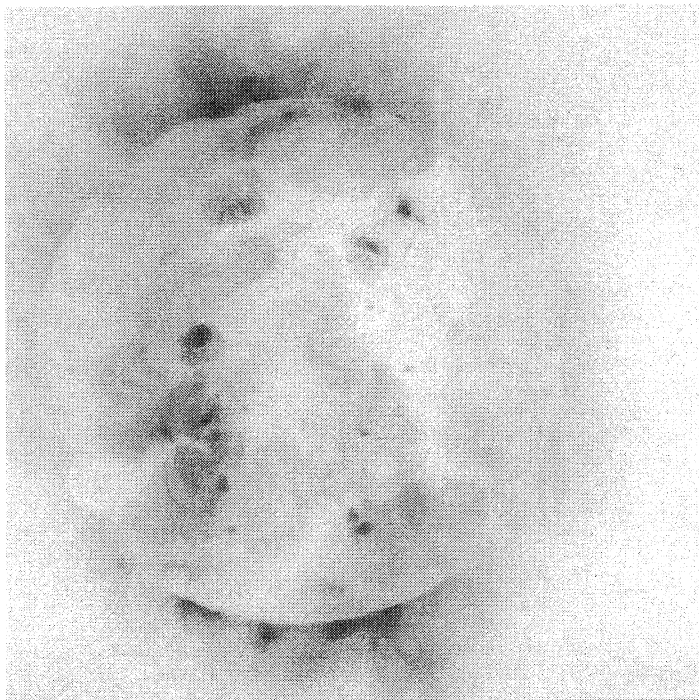
May
2001

Day 25 Day 27
12:26:44 UT 12:31:13 UT



Day 26 Day 28
12:25:47 UT 12:26:39 UT

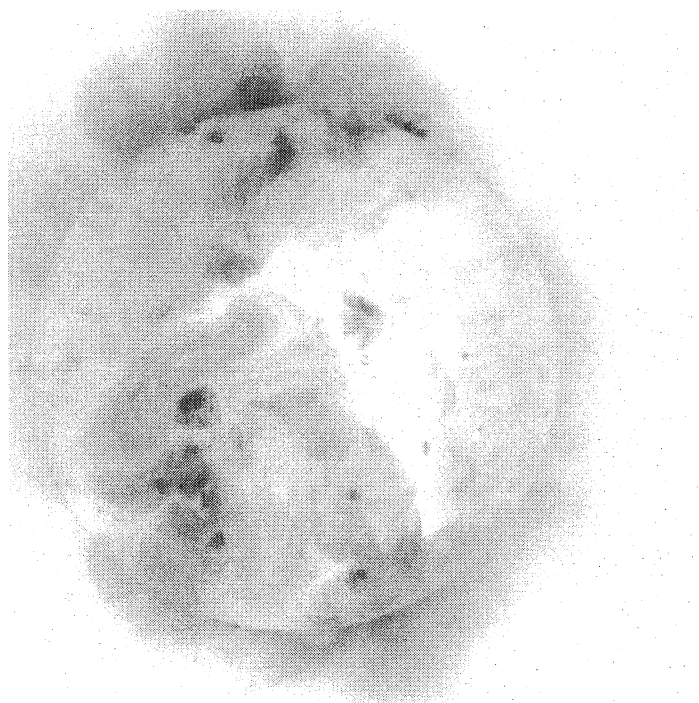
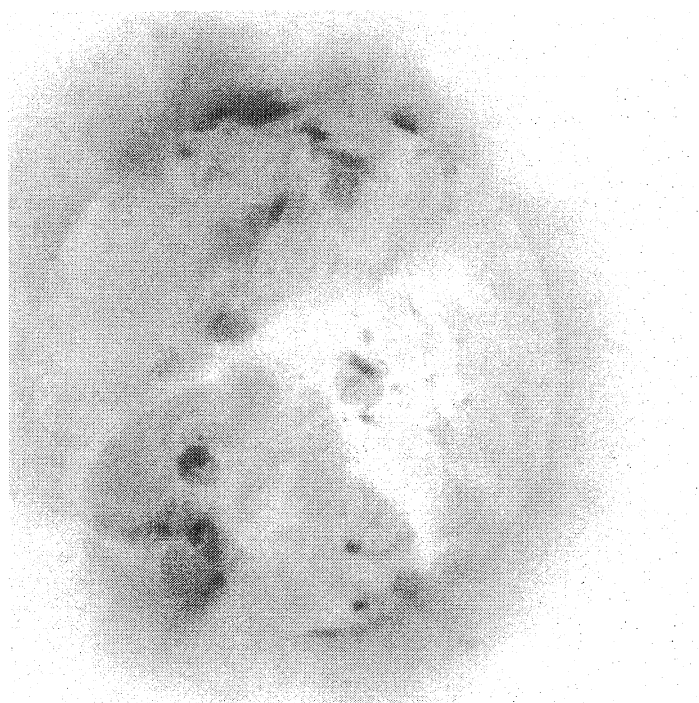




YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

May
2001

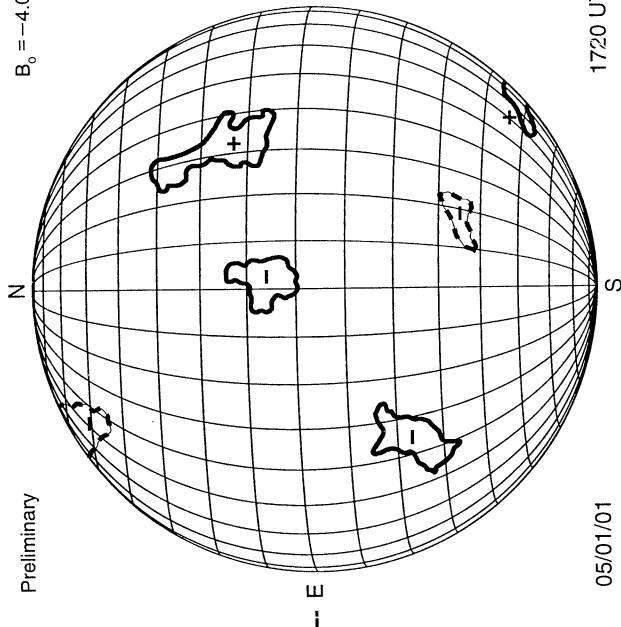
Day 29 12:25:43 UT Day 31 12:25:54 UT



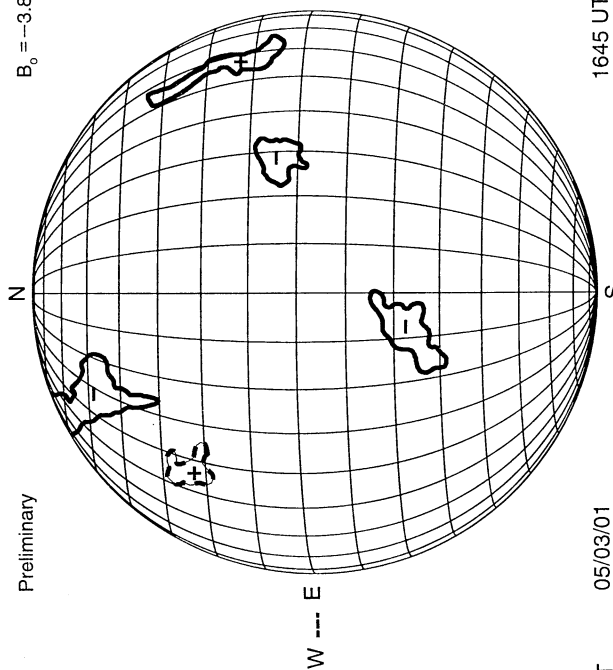
Day 30 12:24:47 UT

KITT PEAK CORONAL HOLE MAPS HE I 1083 nm May 2001

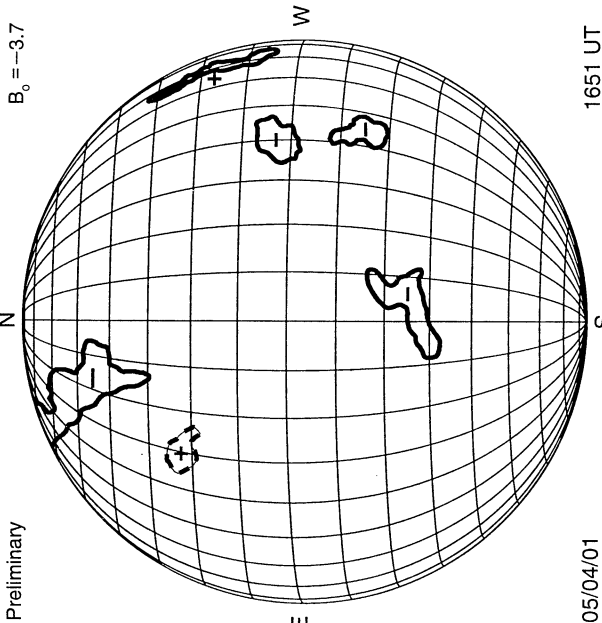
NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary
 $B_0 = -4.0$



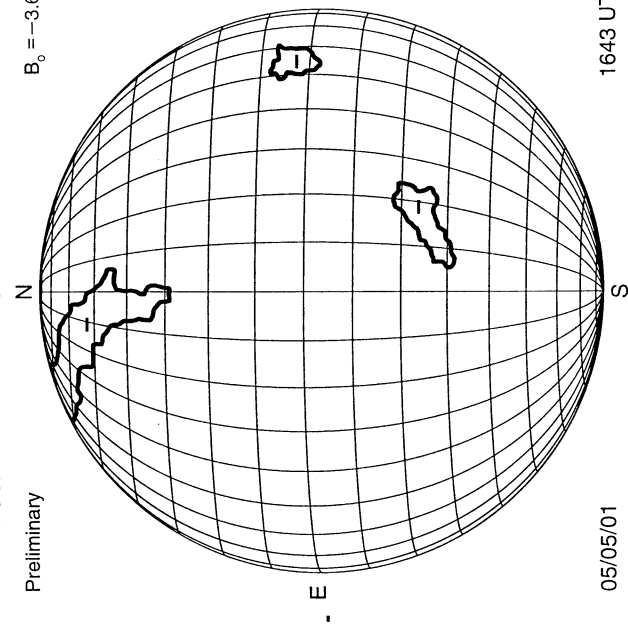
NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary
 $B_0 = -3.8$



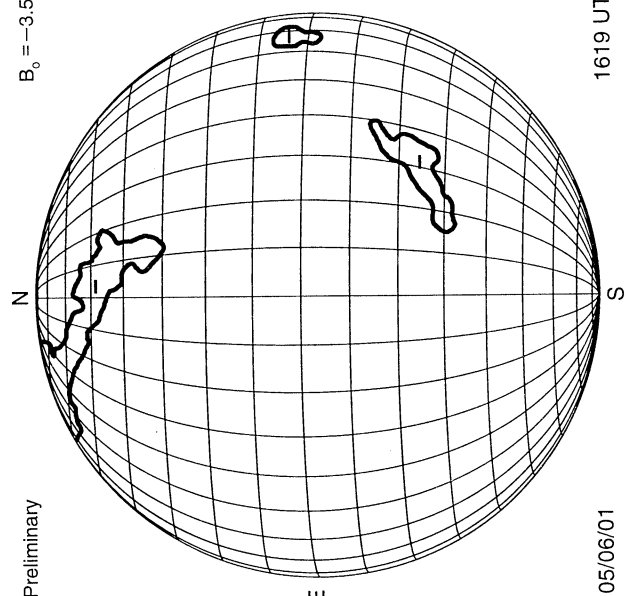
NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary
 $B_0 = -3.7$



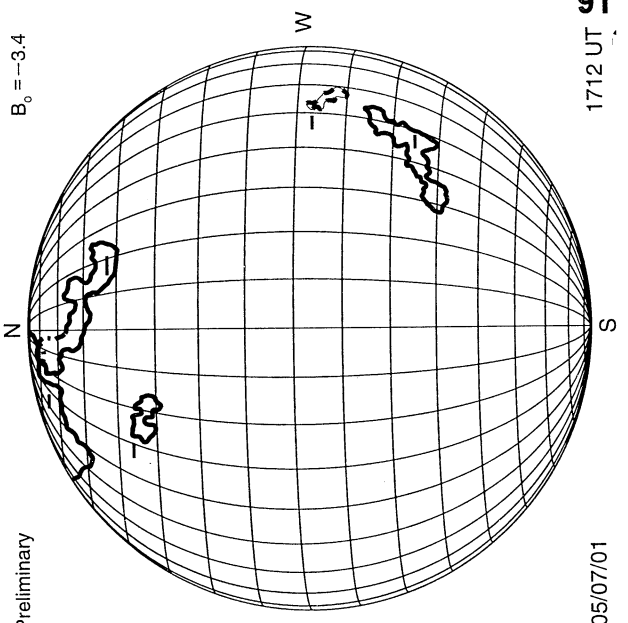
NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary
 $B_0 = -3.6$



NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary
 $B_0 = -3.5$

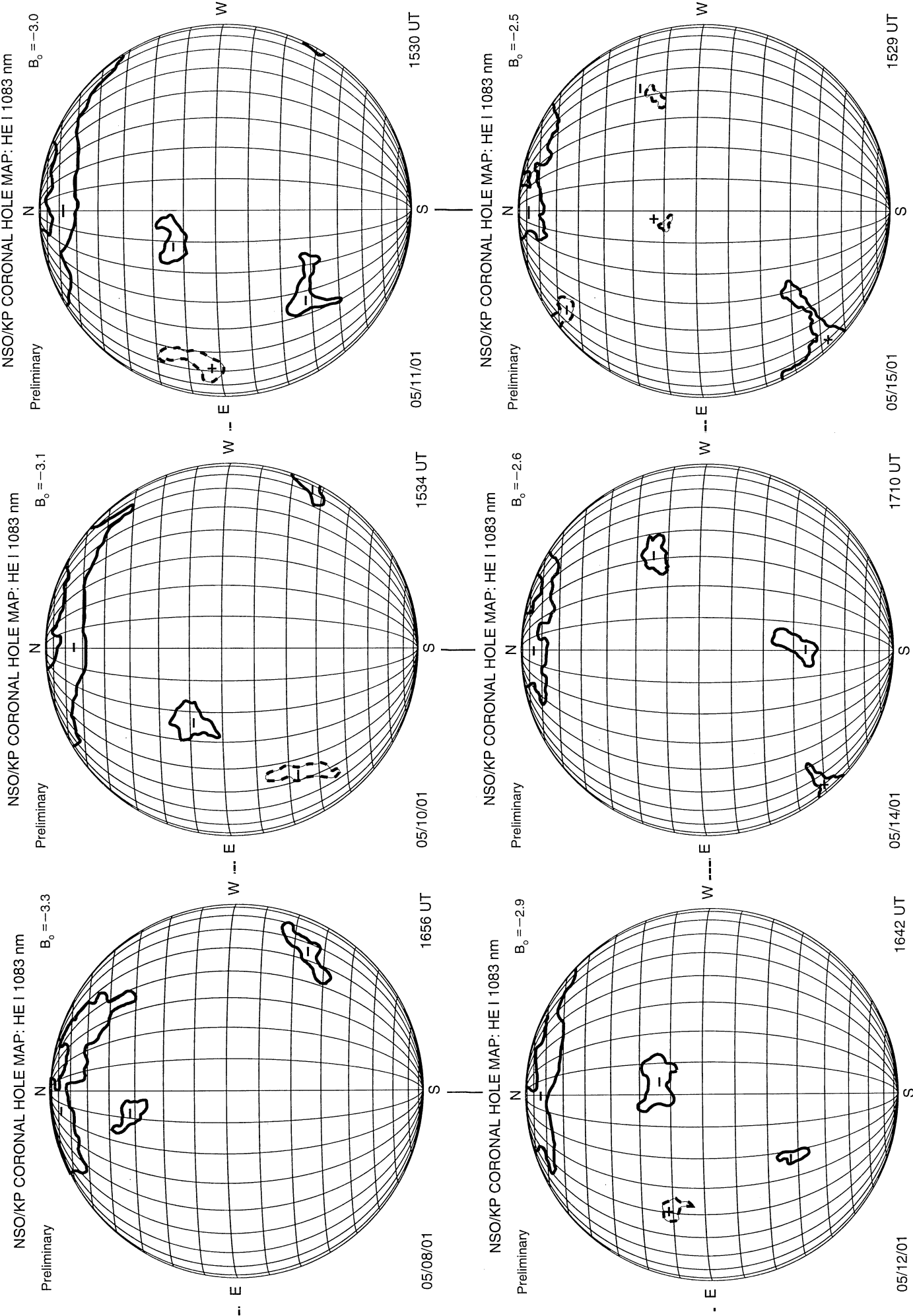


NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary
 $B_0 = -3.4$

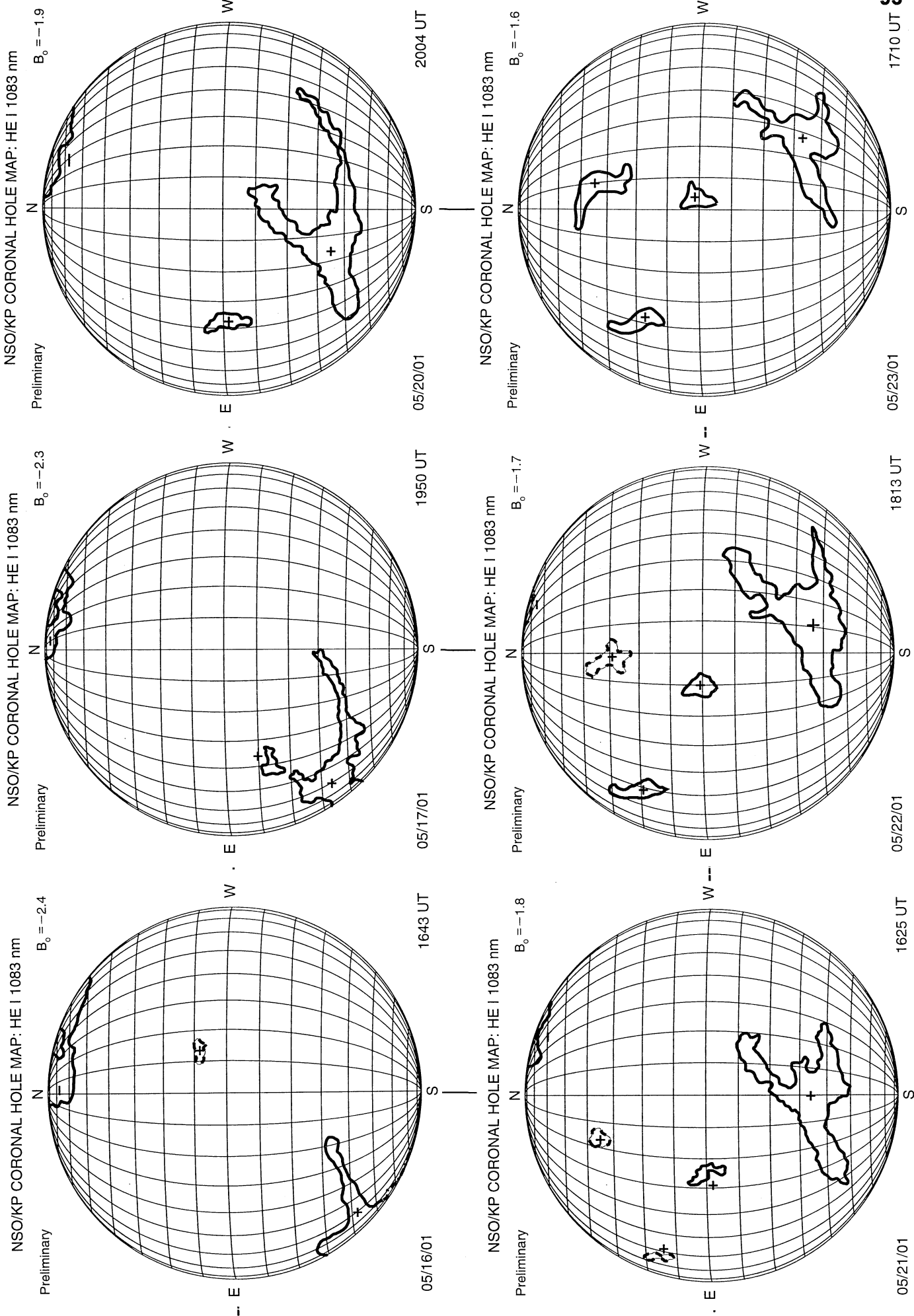


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KITT PEAK CORONAL HOLE MAPS HE I 1083 nm May 2001

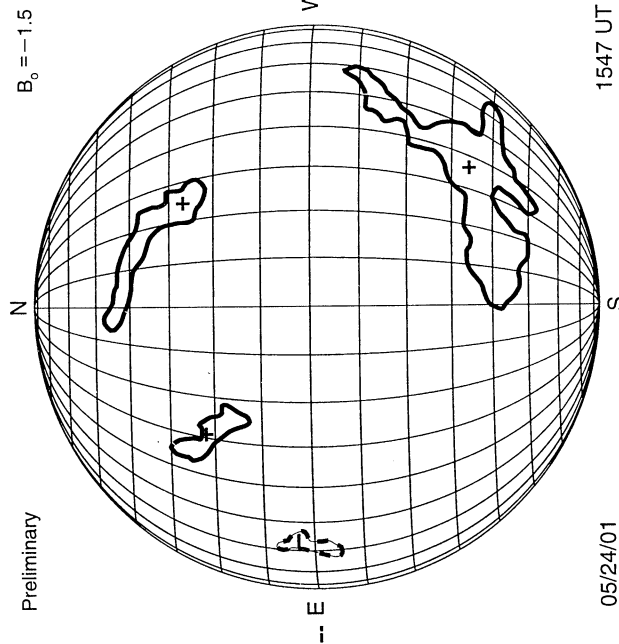


KITT PEAK CORONAL HOLE MAPS HE I 1083 nm May 2001

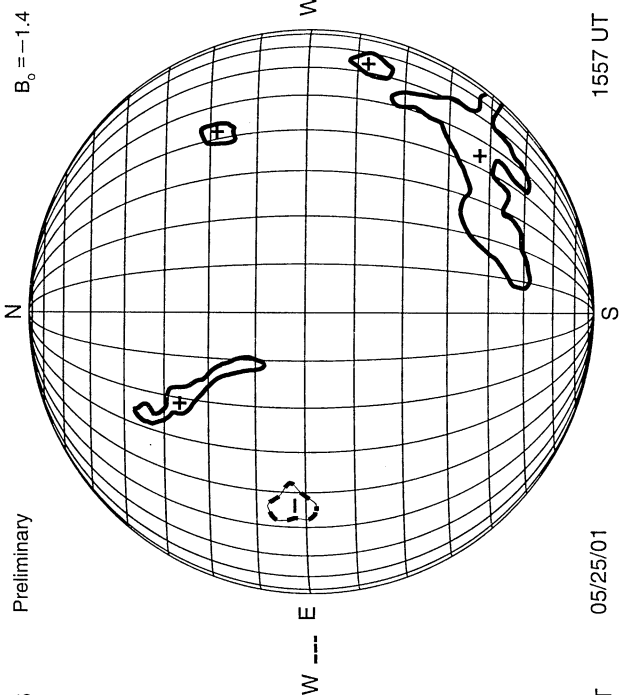


KITT PEAK CORONAL HOLE MAPS HE I 1083 nm May 2001

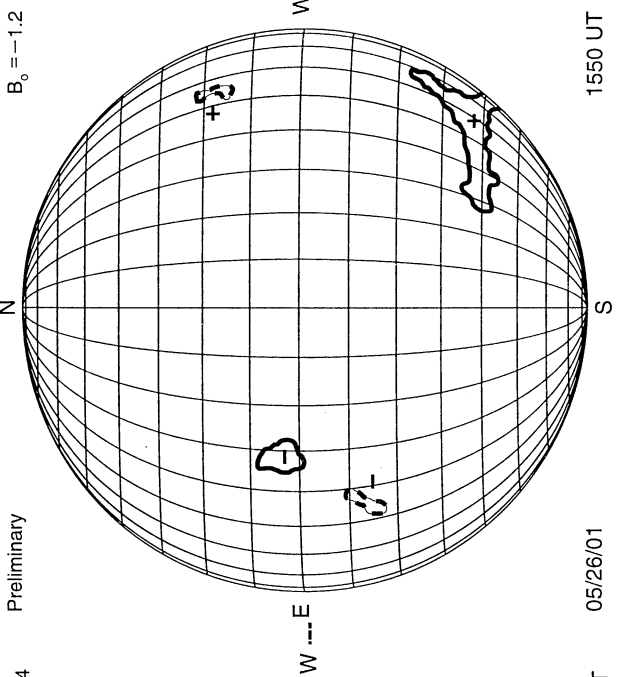
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



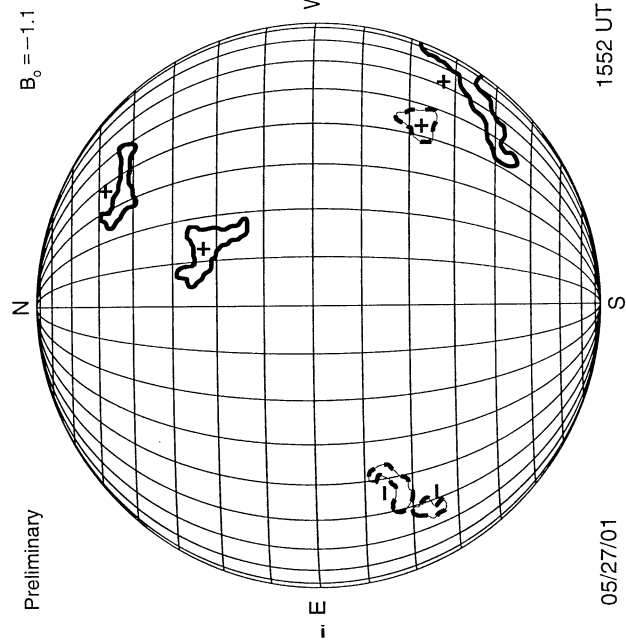
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



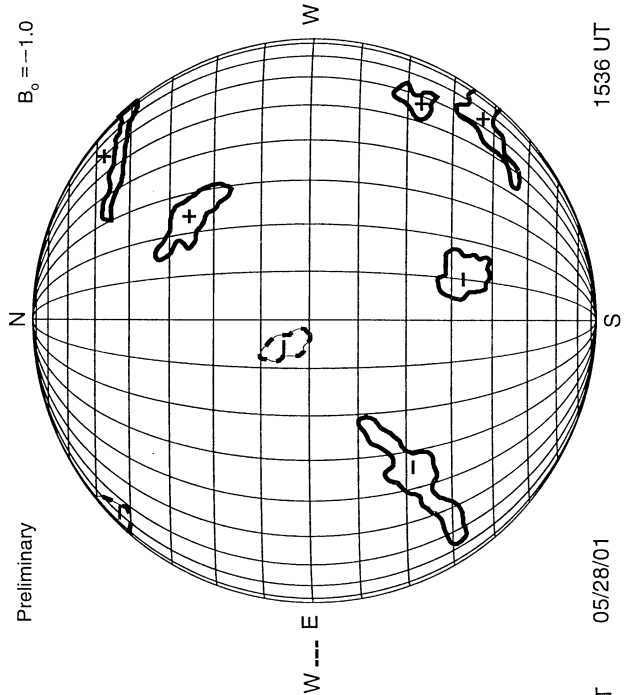
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



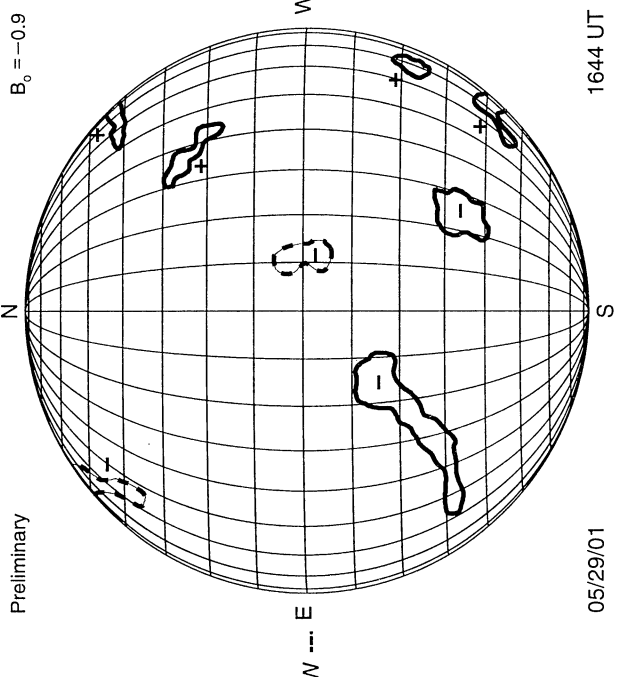
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



NSO/KP CORONAL HOLE MAP: HE I 1083 nm

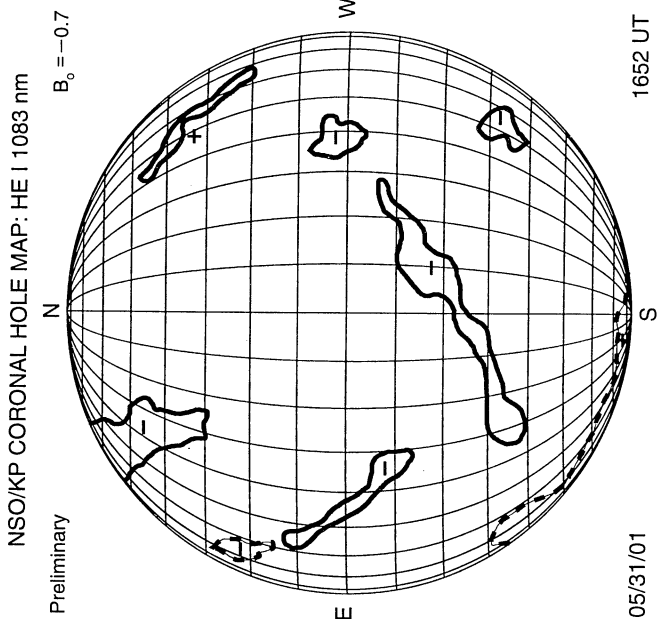
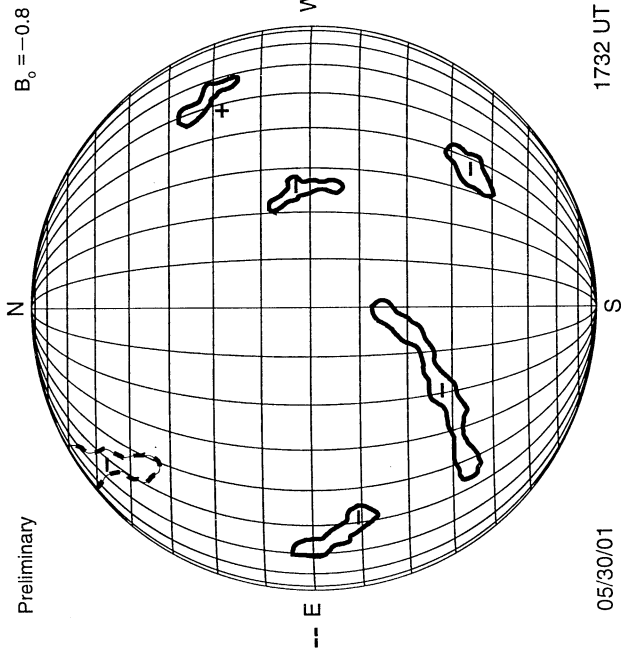


NSO/KP CORONAL HOLE MAP: HE I 1083 nm

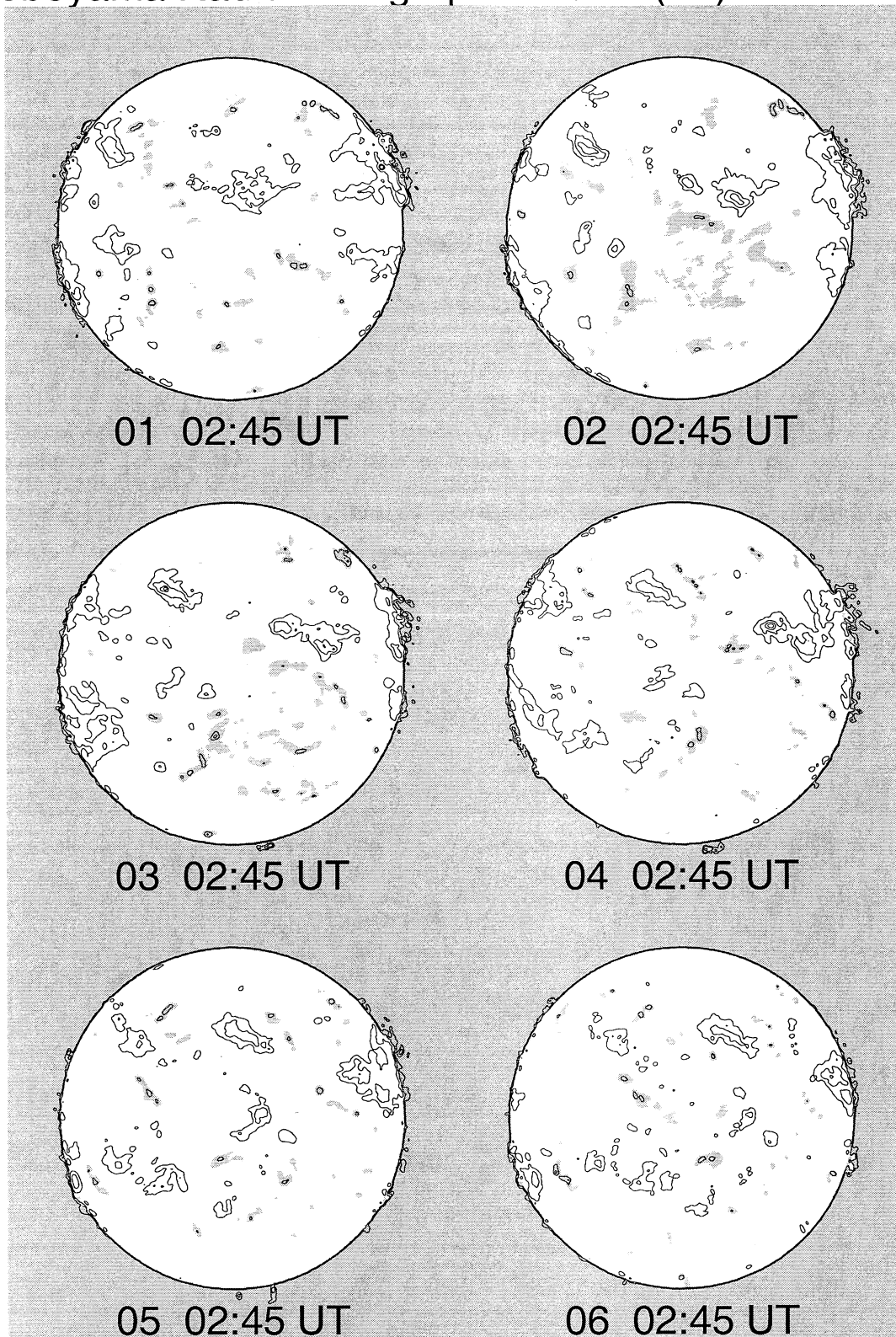


KITT PEAK CORONAL HOLE MAPS HE I 1083 nm May 2001

NSO/KP CORONAL HOLE MAP: HE I 1083 nm
Preliminary

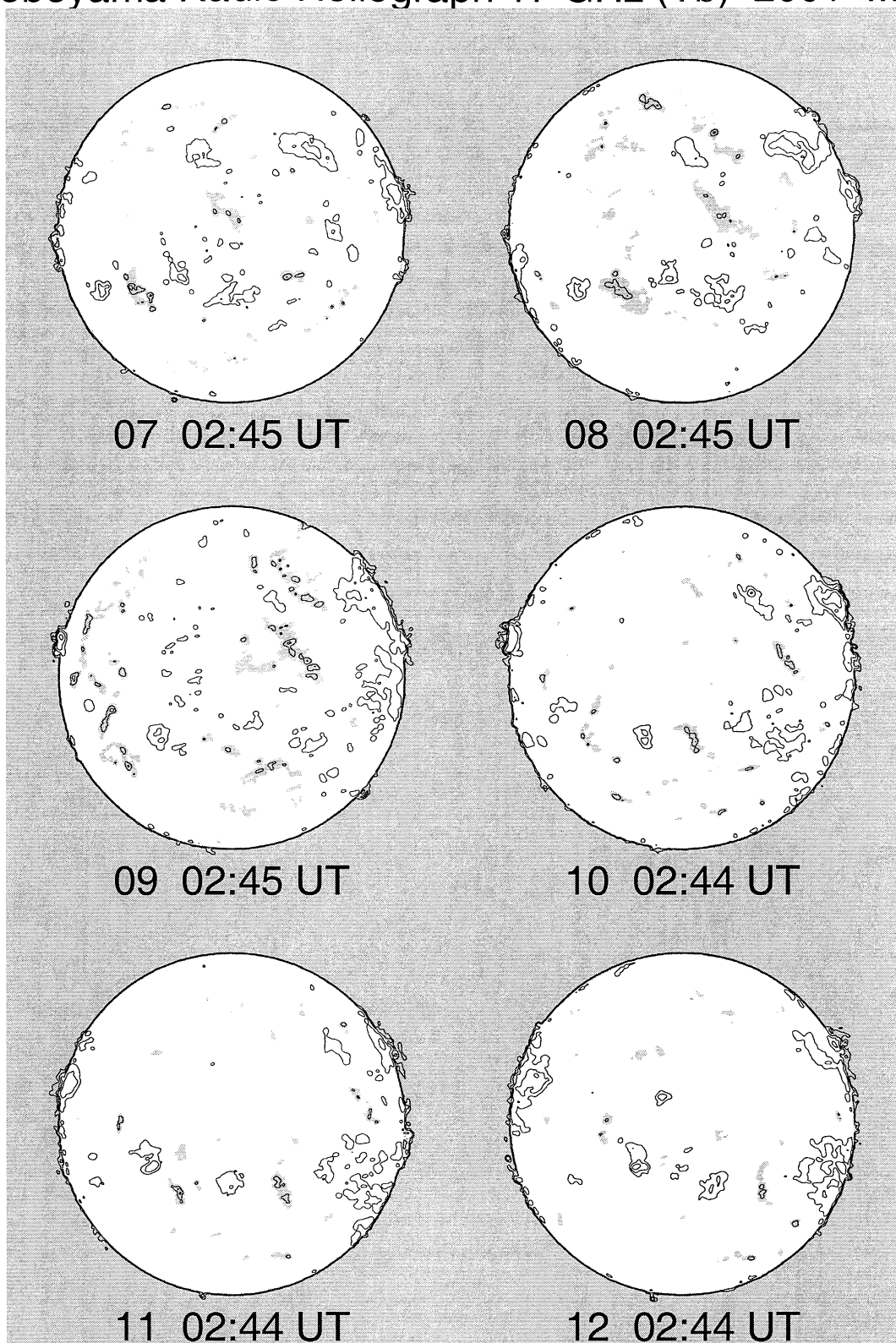


Nobeyama Radio Heliograph 17 GHz (Tb) 2001 May



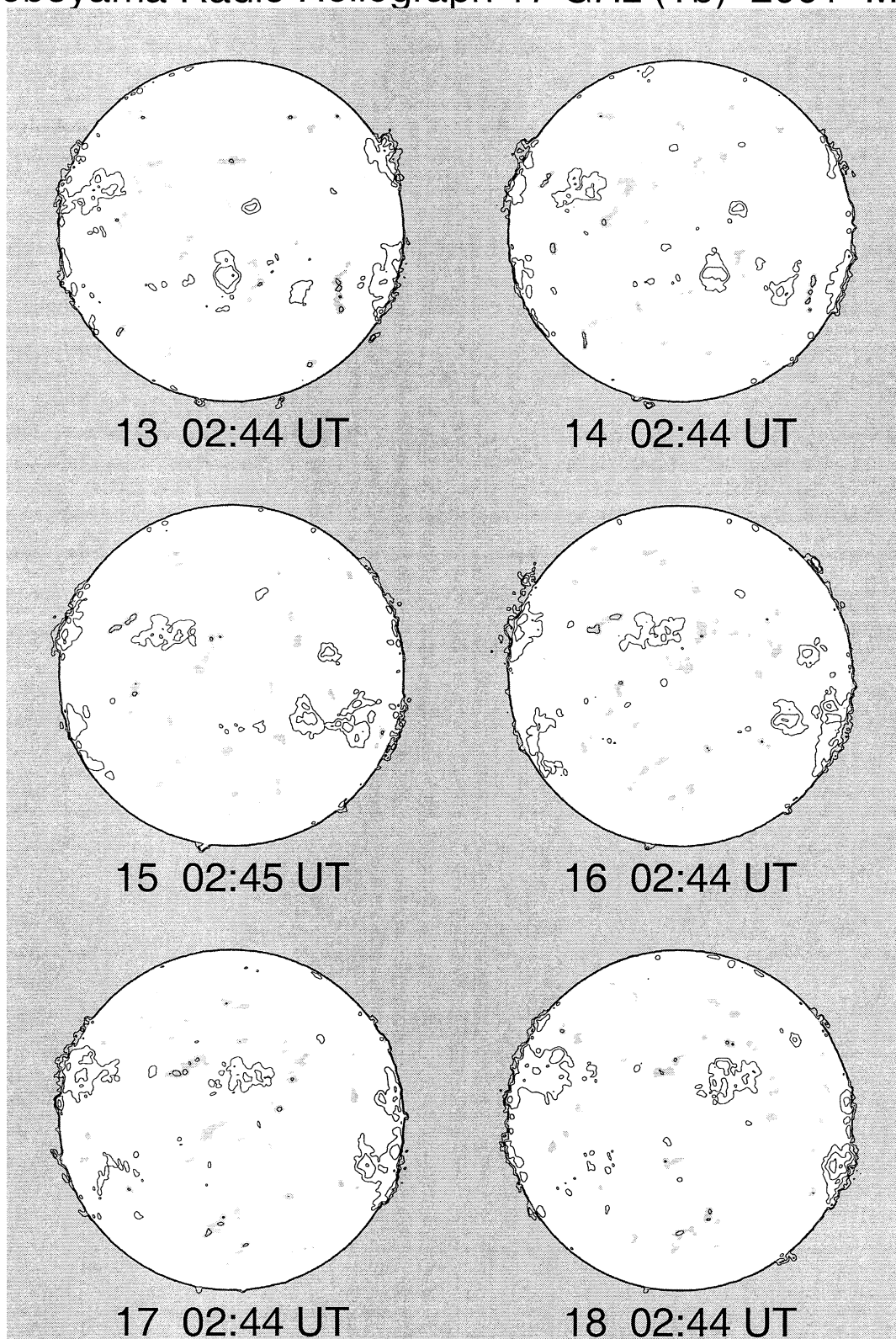
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb \leq 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 May



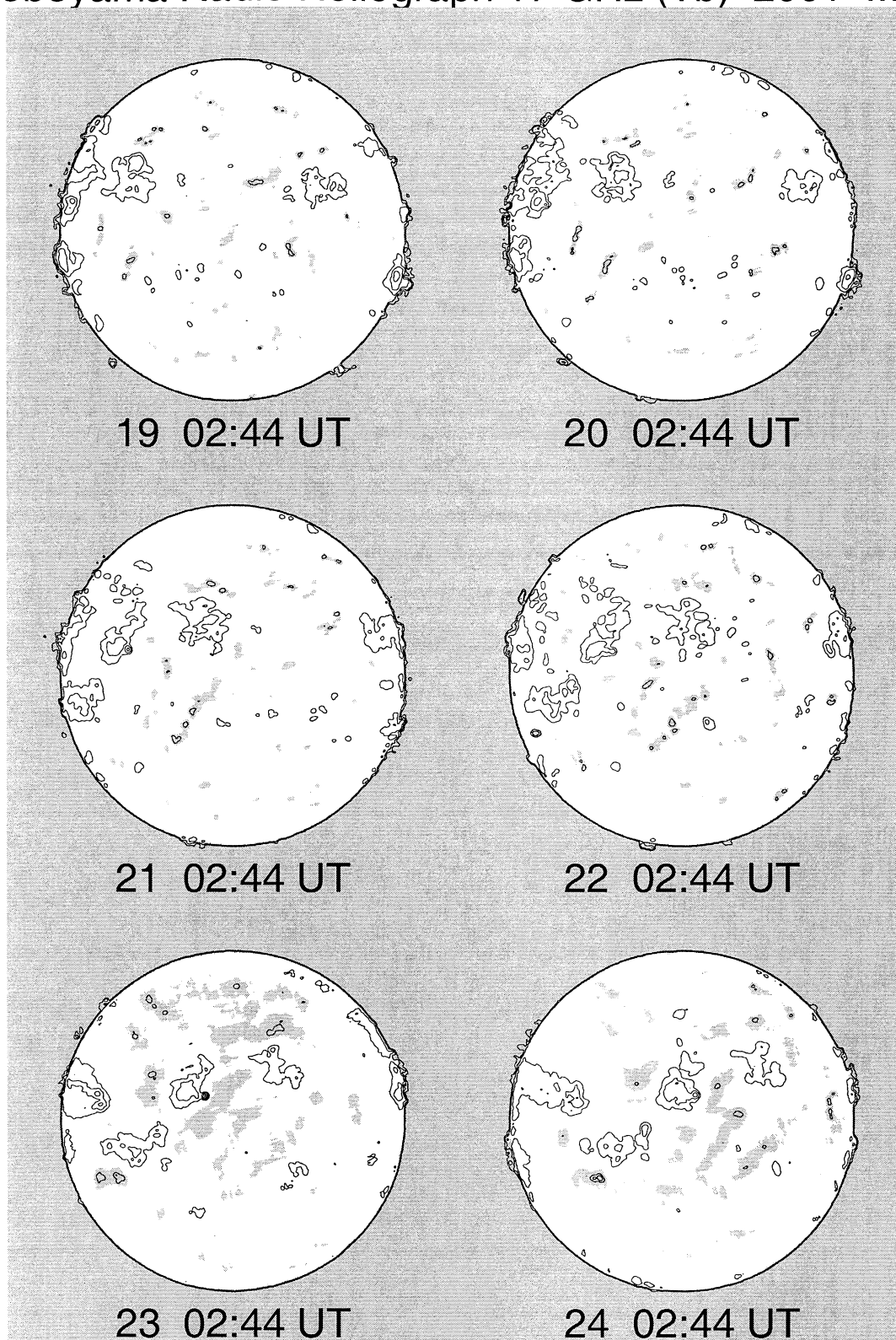
Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3 \text{ K}$
Grey level $T_b \leq 9,500 \text{ K}$

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 May



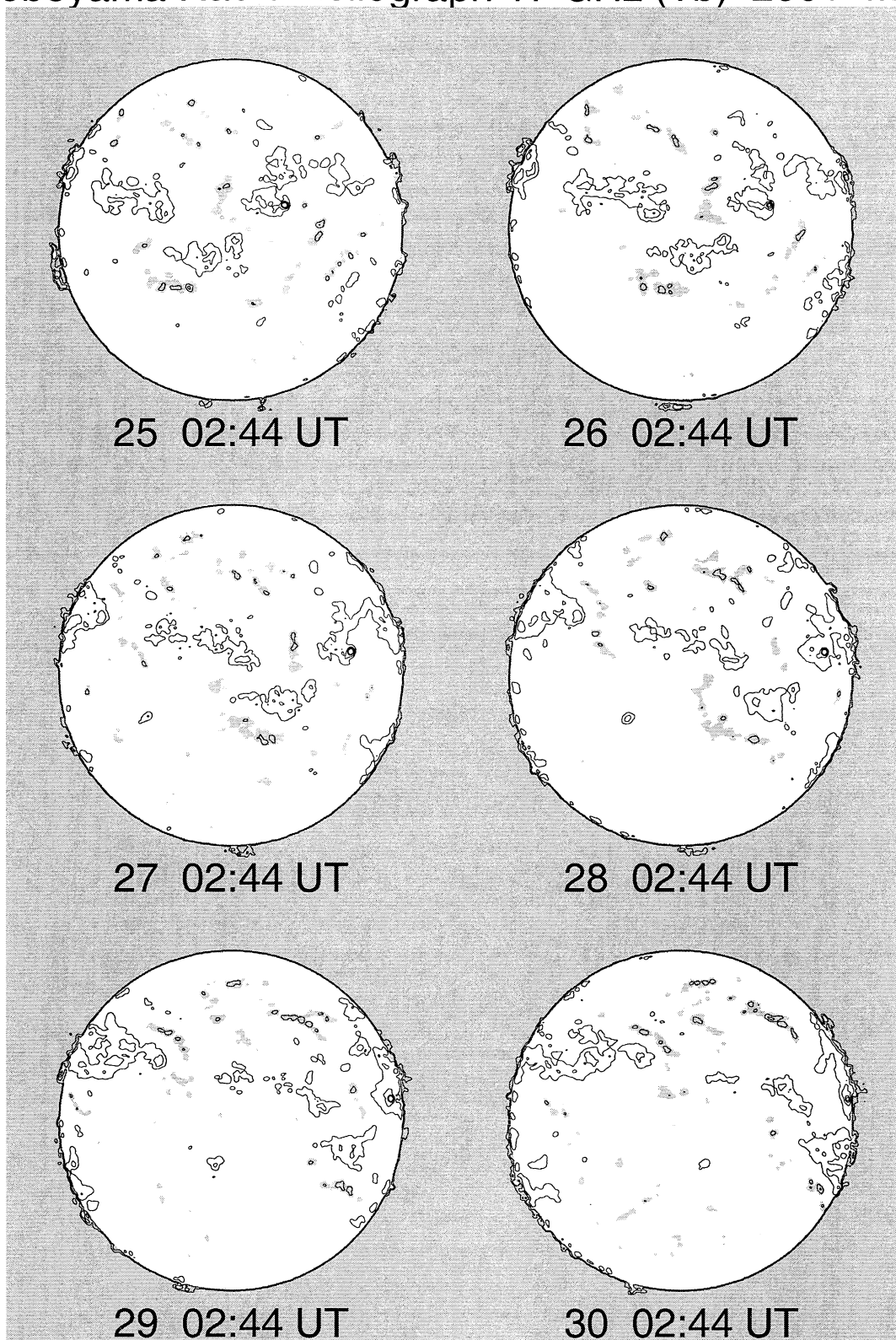
Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 May



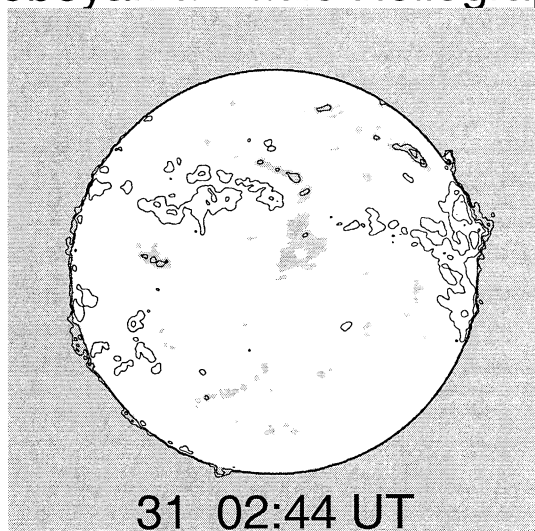
Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb ≤ 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 May



Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb ≤ 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 May



Contour Levels $Tb=[5,8,12,20,50,100] \times 10^3$ K
Grey level $Tb \leq 9,500$ K

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S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

MAY 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9442	30432	RAMY	04 25 1100	N30	E80	05 1.8		A	HSX	30	1	1	3
9442		MWIL	04 25 1430	N28	E78	05 1.7	4	AP					
9442		VORO	04 25 2142	N27	E75	05 1.7			HAX	55	1		2
9442		LEAR	04 26 0021	N28	E70	05 1.5		A	HSX	60	1	2	3
9442		TACH	04 26 0505	N29	E67	05 1.5			AXX	5	1	1	4
9442		KAND	04 26 0740	N28	E70	05 1.8			HS		1	2	3
9442		SVTO	04 26 0750	N26	E71	05 1.8		A	HRX	30	1	1	2
9442		RAMY	04 26 1235	N28	E65	05 1.6		A	HSX	30	1	1	4
9442		HOLL	04 26 1450	N28	E64	05 1.6		A	HSX	50	1	2	3
9442		MWIL	04 26 1500	N28	E67	05 1.9	4	(AP)					
9442	30432	VORO	04 26 2146	N28	E62	05 1.7			HAX	76	1		2
9442		LEAR	04 27 0015	N30	E57	05 1.5		A	HSX	100	1	1	2
9442		TACH	04 27 0551	N28	E56	05 1.6			HSX	50	1	2	4
9442		SVTO	04 27 0630	N28	E57	05 1.7		A	HAX	60	1	1	2
9442		KAND	04 27 0700	N28	E54	05 1.5			HS		1	1	5
9442		RAMY	04 27 1206	N28	E53	05 1.6		A	HSX	40	1	2	3
9442		MWIL	04 27 1500	N28	E51	05 1.6	5	(AP)					
9442		HOLL	04 27 1514	N27	E52	05 1.7		A	HSX	60	1	1	3
9442		VORO	04 27 2147	N28	E49	05 1.7			HAX	66	1		2
9442		LEAR	04 28 0010	N29	E47	05 1.7		A	HSX	70	1	1	3
9442	30432	SVTO	04 28 0510	N28	E45	05 1.7		A	HAX	200	1	1	2
9442		TACH	04 28 0531	N28	E45	05 1.7			HSX	50	1	1	4
9442		KAND	04 28 0605	N29	E45	05 1.8			HS		1	2	4
9442		RAMY	04 28 1208	N28	E41	05 1.7		A	HSX	60	1	2	2
9442		HOLL	04 28 1450	N26	E39	05 1.6		A	HAX	90	1	2	3
9442		MWIL	04 28 1500	N28	E39	05 1.7	5	(AP)					
9442		VORO	04 28 2144	N27	E36	05 1.7			HAX	67	1		2
9442		LEAR	04 29 0008	N28	E33	05 1.6		A	HAX	60	1	1	4
9442		TACH	04 29 0422	N28	E32	05 1.7			AXX	20	1	1	1
9442		SVTO	04 29 0528	N28	E32	05 1.7		A	HSX	50	1	1	2
9442	30432	KAND	04 29 0910	N28	E29	05 1.6			HS		2	1	5
9442		RAMY	04 29 1210	N28	E29	05 1.8		A	HSX	60	1	1	3
9442		HOLL	04 29 1438	N28	E27	05 1.7		A	HSX	50	1	2	3
9442		VORO	04 29 2124	N27	E23	05 1.7			HAX	112	1		2
9442		LEAR	04 30 0003	N28	E21	05 1.6		A	HSX	50	1	1	4
9442		SVTO	04 30 0523	N28	E18	05 1.6		A	HSX	60	1	2	3
9442		TACH	04 30 0537	N27	E19	05 1.7			HSX	110	1	1	3
9442		KAND	04 30 0710	N28	E18	05 1.7			HS		1	2	2
9442		HOLL	04 30 1310	N27	E16	05 1.8		A	HSX	40	1	2	3
9442		MWIL	04 30 1445	N28	E13	05 1.6	5	(AP)					
9442	30432	LEAR	05 01 0020	N28	E07	05 1.6		A	HSX	40	1	1	2
9442		SVTO	05 01 0700	N30	E04	05 1.6		B	CSO	80	4	6	3
9442		KAND	05 01 0730	N28	E05	05 1.7			HA		1	2	4
9442		RAMY	05 01 1140	N28	E02	05 1.6		A	HSX	40	1	1	3
9442		HOLL	05 01 1420	N29	W01	05 1.5		B	CSO	60	4	5	3
9442		MWIL	05 01 1430	N29	W00	05 1.6	5	(BF)					
9442		LEAR	05 02 0007	N27	W05	05 1.6		A	HSX	60	1	1	3
9442		VORO	05 02 0115	N27	W05	05 1.7			HAX	84	1		2
9442		TACH	05 02 0415	N28	W07	05 1.6			HSX	70	1	1	3
9442		SVTO	05 02 0504	N27	W08	05 1.6		A	HSX	70	1	1	2
9442	30432	KAND	05 02 0740	N27	W07	05 1.8			HS		1	2	2
9442		RAMY	05 02 1220	N28	W11	05 1.6		A	HSX	20	1	1	4
9442		HOLL	05 02 1408	N27	W12	05 1.6		A	HSX	60	1	2	3
9442		MWIL	05 02 1430	N27	W12	05 1.7	4	(AP)					
9442		LEAR	05 03 0010	N27	W18	05 1.6		A	HAX	50	1	1	4
9442		VORO	05 03 0020	N27	W16	05 1.8			HAX	62	1		2
9442		KAND	05 03 0700	N27	W21	05 1.6			HS		1	1	3
9442		SVTO	05 03 0825	N26	W22	05 1.6		A	HRX	40	1	2	2
9442		TACH	05 03 0959	N28	W22	05 1.7			HSX	203	1	1	3
9442		HOLL	05 03 1430	N26	W24	05 1.7		A	HSX	40	1	2	2
9442	30432	MWIL	05 03 1430	N27	W24	05 1.7	4	(AP)					
9442		RAMY	05 03 1550	N28	W24	05 1.8		A	HSX	50	1	1	1
9442		LEAR	05 04 0015	N27	W28	05 1.8		A	HSX	50	1	1	4
9442		SVTO	05 04 0529	N26	W32	05 1.7		A	HSX	30	1	1	3
9442		KAND	05 04 0705	N26	W32	05 1.8			HS		1	2	3
9442		RAMY	05 04 1218	N28	W34	05 1.8		A	HSX	30	1	2	2
9442		MWIL	05 04 1430	N27	W37	05 1.7	5	(AP)					
9442		HOLL	05 04 1700	N27	W39	05 1.7		A	HSX	30	1	1	2
9442		LEAR	05 05 0120	N27	W42	05 1.8		A	HSX	40	1	1	1

NOAA/ USAF	Mt Wilson Group	Sta	Observation Time			Lat	CMD	CMP		Max	Mag	Spot	Corrected	Spot	Long.		
Group	Group		Mo	Day	(UT)			Mo	Day	H	Class	Class	(10-6 Hemi)	Count	Extent	Qual	
9442	30432	TACH	05	05	0540	N27	W46	05	1.6			HSX	45	1	1	4	
9442		KAND	05	05	0820	N27	W46	05	1.8			HR		1	1	3	
9442		SVTO	05	05	1025	N27	W46	05	1.8		A	HSX	20	2	1	2	
9442		RAMY	05	05	1218	N27	W45	05	2.0		A	HSX	30	1	1	2	
9442		MWIL	05	05	1430	N27	W50	05	1.7	5	(AP)						
9442		HOLL	05	05	1440	N26	W49	05	1.8		A	HSX	40	1	1	3	
9442	30432	VORO	05	06	0121	N27	W54	05	1.8			HAX	29	1		2	
9442		TACH	05	06	0639	N26	W57	05	1.8			AXX	10	1	1	4	
9442		MWIL	05	06	1430	N27	W61	05	1.8	4	(AP)						
9442		HOLL	05	06	1440	N26	W65	05	1.6		A	HSX	50	1	1	3	
9447	30440	HOLL	04	29	1438	N11	E32	05	2.0		A	AXX	10	2	2	3	
9447		MWIL	04	29	1500	N13	E33	05	2.1	4	(B)						
9447		VORO	04	29	2124	N12	E30	05	2.1			BXO	33	3	1	2	
9447		LEAR	04	30	0003	N12	E28	05	2.1		B	CRO	10	3	2	4	
9447	30440	SVTO	04	30	0523	N13	E24	05	2.0		B	CRO	10	3	3	3	
9447		TACH	04	30	0537	N13	E28	05	2.3			AXX	3	1	1	3	
9447		HOLL	04	30	1310	N12	E22	05	2.2		A	AXX		1	1	3	
9447		MWIL	04	30	1445	N14	E21	05	2.2	4	(AF)						
9447		RAMY	05	01	1140	N12	E07	05	2.0		B	DRO	10	2	2	3	
9447		HOLL	05	01	1420	N13	E06	05	2.0		B	BXO	10	4	3	3	
9447		MWIL	05	01	1430	N12	E05	05	2.0	4	(BF)						
9447		LEAR	05	02	0007	N12	E00	05	2.0		B	DRO	20	8	4	3	
9447		VORO	05	02	0115	N12	W01	05	2.0			BXI	36	4	4	2	
9447		TACH	05	02	0415	N12	W04	05	1.9			BRO	488	5	3	3	
9447	30440	SVTO	05	02	0504	N12	W04	05	1.9		B	DAO	60	6	5	2	
9447		KAND	05	02	0740	N12	W04	05	2.0			DAO		10	6	2	
9447		RAMY	05	02	1220	N12	W07	05	2.0		B	DSO	60	14	7	4	
9447		HOLL	05	02	1408	N13	W08	05	2.0		B	DAO	80	22	7	3	
9447		MWIL	05	02	1430	N13	W09	05	1.9	4	(B)						
9447		LEAR	05	03	0010	N12	W15	05	1.9		B	DAO	90	21	8	4	
9447		VORO	05	03	0020	N12	W14	05	1.9			DSO	103	5	7	2	
9447		KAND	05	03	0700	N13	W20	05	1.8			DSI		22	10	3	
9447		SVTO	05	03	0825	N11	W19	05	1.9		B	EAO	100	17	11	2	
9447		TACH	05	03	0959	N13	W21	05	1.8			CAI	400	11	7	3	
9447	30440	HOLL	05	03	1430	N11	W23	05	1.9		B	EAO	70	24	11	2	
9447		MWIL	05	03	1430	N12	W22	05	1.9	4	(BP)						
9447		RAMY	05	03	1550	N12	W21	05	2.1		B	DAO	150	19	10	1	
9447		LEAR	05	04	0015	N13	W28	05	1.9		BG	EAI	200	34	11	4	
9447		SVTO	05	04	0529	N12	W32	05	1.8		BG	EAI	180	22	13	3	
9447		KAND	05	04	0705	N12	W34	05	1.7			EAI		37	13	3	
9447		RAMY	05	04	1218	N13	W35	05	1.9		B	ESO	370	11	12	2	
9447		MWIL	05	04	1430	N13	W38	05	1.7	5	(BG)						
9447		HOLL	05	04	1700	N11	W39	05	1.8		B	EAO	380	32	13	2	
9447		LEAR	05	05	0120	N13	W42	05	1.9		BG	DAI	240	18	10	1	
9447	30440	TACH	05	05	0540	N13	W47	05	1.7			DAI	383	9	13	4	
9447		KAND	05	05	0820	N13	W49	05	1.6			EAO		18	14	3	
9447		SVTO	05	05	1025	N13	W47	05	1.9		B	EAI	260	16	13	2	
9447		RAMY	05	05	1218	N12	W48	05	1.9		B	ESO	270	5	12	2	
9447		MWIL	05	05	1430	N13	W52	05	1.7	5	(D)						
9447		HOLL	05	05	1440	N11	W53	05	1.6		BG	EAI	250	24	14	3	
9447		VORO	05	06	0121	N12	W63	05	1.3			HAX	175	3		2	
9447		TACH	05	06	0639	N12	W61	05	1.7			CAI	125	5	9	4	
9447		MWIL	05	06	1430	N13	W66	05	1.6	5	(BP)						
9447		HOLL	05	06	1440	N11	W68	05	1.5		B	EAO	200	6	14	3	
9447	30440	VORO	05	07	0011	N13	W73	05	1.5			CAO	210	2	11	2	
9447		LEAR	05	07	0101	N13	W71	05	1.7		B	EAO	140	3	12	4	
9447		SVTO	05	07	0548	N11	W75	05	1.6		B	ESO	210	2	11	3	
9447		KAND	05	07	0900	N12	W76	05	1.6			CSO		3	10	3	
9447		RAMY	05	07	1320	N13	W80	05	1.5		B	EAO	80	2	11	4	
9447		HOLL	05	07	1450	N12	W79	05	1.7		B	CSO	70	3	8	3	
9447		MWIL	05	07	1545	N13	W80	05	1.6	4	(B)						
9447A		30441	MWIL	04	30	1445	S11	E28	05	2.7	3	(BF)					
9447A			SVTO	05	01	0700	S11	E21	05	2.9		B	CRO	10	3	2	3
9447A			RAMY	05	01	1140	S11	E16	05	2.7		B	CRO		2	2	3
9447A	HOLL		05	01	1420	S12	E15	05	2.7		A	AXX	10	2	2	3	
9447A	30441	MWIL	05	01	1430	S11	E15	05	2.7	4	(B)						
9444	30436	MWIL	04	27	1500	S10	E80	05	3.6	4	AF						

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9444		KAND	04	28	0605	S09	E72	05	3.6			AX		1	1	4
9444		RAMY	04	28	1208	S11	E75	05	4.1		A	HSX	60	1	1	2
9444		HOLL	04	28	1450	S11	E71	05	3.9		A	AXX	60	4	2	3
9444	30436	MWIL	04	28	1500	S10	E71	05	3.9	4	(B)					
9444		LEAR	04	29	0008	S10	E65	05	3.9		B	DSO	70	6	5	4
9444		SVTO	04	29	0528	S11	E62	05	3.9		B	CRO	40	6	5	2
9444		KAND	04	29	0910	S10	E60	05	3.9			CAO		3	6	5
9444		RAMY	04	29	1210	S11	E58	05	3.9		B	CSO	30	3	4	3
9444		HOLL	04	29	1438	S12	E57	05	3.9		B	CAO	50	7	7	3
9444	30436	MWIL	04	29	1500	S10	E55	05	3.7	4	(B)					
9444		VORO	04	29	2124	S10	E51	05	3.7			HAX	31	1		2
9444		LEAR	04	30	0003	S11	E51	05	3.8		B	CRO	20	5	5	4
9444		SVTO	04	30	0523	S11	E48	05	3.8		B	CSO	30	3	4	3
9444		TACH	04	30	0537	S10	E47	05	3.8			HSX	40	1	1	3
9444		KAND	04	30	0710	S09	E46	05	3.7			HS		1	1	2
9444		HOLL	04	30	1310	S12	E42	05	3.7		B	BXO	10	2	5	3
9444	30436	MWIL	04	30	1445	S10	E43	05	3.8	4	(B)					
9444		LEAR	05	01	0020	S10	E36	05	3.7		B	BXO	30	4	4	2
9444		SVTO	05	01	0700	S07	E35	05	3.9		B	CSO	40	6	6	3
9444		KAND	05	01	0730	S09	E32	05	3.7			CSO		3	5	4
9444		RAMY	05	01	1140	S10	E28	05	3.6		A	HSX	10	1	1	3
9444		HOLL	05	01	1420	S09	E29	05	3.8		B	BXO	10	3	5	3
9444	30436	MWIL	05	01	1430	S09	E30	05	3.8	4	(BF)					
9444		RAMY	05	02	1220	S10	E19	05	3.9		A	AXX		2	1	4
9444		HOLL	05	02	1408	S12	E17	05	3.9		A	AXX	10	3	1	3
9444	30436	MWIL	05	02	1430	S11	E17	05	3.9	4	(AF)					
9444		LEAR	05	03	0010	S11	E12	05	3.9		A	AXX	10	4	2	4
9444		LEAR	05	04	0015	S11	W03	05	3.8		A	AXX		1		4
9450	30442	MWIL	04	30	1445	S04	E55	05	4.7	4	(AP)					
9450		VORO	05	02	0115	S03	E31	05	4.4			AXX	14	1		2
9450		TACH	05	02	0415	S03	E29	05	4.3			AXX	3	1	1	3
9450		RAMY	05	02	1220	S03	E24	05	4.3		B	CRO	10	2	1	4
9450		HOLL	05	02	1408	S04	E24	05	4.4		A	AXX	10	1	1	3
9450	30442	MWIL	05	02	1430	S03	E23	05	4.3	4	(AP)					
9450		LEAR	05	03	0010	S04	E17	05	4.3		A	AXX		1		4
9450		KAND	05	03	0700	S02	E14	05	4.3			AX		1		3
9450		SVTO	05	03	0825	S03	E13	05	4.3		A	AXX	10	1	1	2
9450		SVTO	05	04	0529	S03	E03	05	4.4		B	CRO	20	4	2	3
9450		KAND	05	04	0705	S02	E03	05	4.5			BXO		4	2	3
9450		RAMY	05	04	1218	S03	W01	05	4.4		B	CSO	20	2	3	2
9450	30442	MWIL	05	04	1430	S03	W03	05	4.4	4	(BP)					
9450		HOLL	05	04	1700	S02	W04	05	4.4		B	CAO	20	11	3	2
9450		LEAR	05	05	0120	S03	W08	05	4.4		B	DRO	20	8	4	1
9450		TACH	05	05	0540	S02	W12	05	4.3			BRO	25	3	8	4
9450		KAND	05	05	0820	S03	W11	05	4.5			BXO		6	3	3
9450		SVTO	05	05	1025	S02	W13	05	4.5		B	DAO	30	5	4	2
9450		RAMY	05	05	1218	S03	W13	05	4.5		B	DAO	60	3	4	2
9450	30442	MWIL	05	05	1430	S03	W17	05	4.3	4	(BP)					
9450		HOLL	05	05	1440	S04	W16	05	4.4		B	BXO	20	9	4	3
9450		VORO	05	06	0121	S03	W24	05	4.3			AXX	15	1		2
9450		TACH	05	06	0639	S02	W28	05	4.2			AXX	15	1	1	4
9450	30442	MWIL	05	06	1430	S02	W31	05	4.3	5	(AP)					
9450		HOLL	05	06	1440	S03	W32	05	4.2		A	HSX	20	2	1	3
9450		VORO	05	07	0011	S02	W36	05	4.3			BXI	21	6	6	2
9450		LEAR	05	07	0101	S03	W36	05	4.3		B	BXO	10	5	5	4
9450		SVTO	05	07	0548	S03	W39	05	4.3		B	DSO	30	4	7	3
9450		RAMY	05	07	1320	S01	W43	05	4.3		B	DSO	10	3	7	4
9450		HOLL	05	07	1450	S02	W45	05	4.2		B	CAO	50	3	7	3
9450	30442	MWIL	05	07	1545	S02	W45	05	4.3	4	(B)					
9450		LEAR	05	08	0215	S02	W55	05	4.0		A	AXX	20	2	2	3
9450		VORO	05	08	0324	S02	W55	05	4.0			AXX	7	1		2
9450		LEAR	05	09	0525	S01	W68	05	4.1		A	AXX	10	1	1	2
9445		KAND	04	28	0605	N26	E80	05	4.5			HS		1	2	4
9445		RAMY	04	28	1208	N24	E84	05	5.0		B	CAO	60	3	5	2
9445		HOLL	04	28	1450	N23	E79	05	4.7		B	CAO	60	5	5	3
9445	30437	MWIL	04	28	1500	N25	E79	05	4.7	4	(AP)					
9445		VORO	04	28	2144	N25	E78	05	4.9			DAI	269	6	10	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat CMD		CMP Mo Day		Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9445		LEAR	04	29	0008	N25 E72	05	4.6		B	DAO	120	11	10	4
9445		TACH	04	29	0422	N25 E74	05	4.9			BRO	21	3	7	1
9445		SVTO	04	29	0528	N25 E72	05	4.8		B	DAO	210	7	8	2
9445		KAND	04	29	0610	N25 E70	05	4.7			EAO		8	14	5
9445		RAMY	04	29	1210	N23 E70	05	4.9		B	ESO	260	8	15	3
9445		HOLL	04	29	1438	N24 E63	05	4.5		B	DSO	210	11	10	3
9445	30437	MWIL	04	29	1500	N25 E67	05	4.8	4	(BP)					
9445		VORO	04	29	2124	N25 E65	05	4.9			DAI	454	5	11	2
9445		LEAR	04	30	0003	N25 E61	05	4.7		B	FAO	300	20	16	4
9445		SVTO	04	30	0523	N25 E58	05	4.7		B	EAO	340	15	13	3
9445		TACH	04	30	0537	N23 E59	05	4.8			DAI	174	8	6	3
9445		KAND	04	30	0710	N24 E58	05	4.8			EAO		11	14	2
9445		HOLL	04	30	1310	N23 E55	05	4.8		B	EAO	360	27	14	3
9445	30437	MWIL	04	30	1445	N25 E54	05	4.8	5	(BG)					
9445		LEAR	05	01	0020	N26 E48	05	4.7		B	EAO	350	22	12	2
9445		SVTO	05	01	0700	N27 E46	05	4.9		B	FAO	440	28	20	3
9445		KAND	05	01	0730	N25 E44	05	4.7			FAO		17	17	4
9445		RAMY	05	01	1140	N25 E43	05	4.8		B	EAI	320	23	16	3
9445		HOLL	05	01	1420	N25 E42	05	4.8		B	FAI	450	37	17	3
9445	30437	MWIL	05	01	1430	N25 E41	05	4.8	5	(D)					
9445		LEAR	05	02	0007	N26 E34	05	4.6		B	FAI	330	35	15	3
9445		VORO	05	02	0115	N25 E36	05	4.8			DAI	429	12	17	2
9445		TACH	05	02	0415	N25 E31	05	4.6			DAI	32	14	12	3
9445		SVTO	05	02	0504	N26 E33	05	4.8		BG	FSI	450	32	19	2
9445		KAND	05	02	0740	N25 E31	05	4.7			FSI		26	20	2
9445		RAMY	05	02	1220	N25 E29	05	4.8		B	FAC	280	38	19	4
9445		HOLL	05	02	1408	N24 E28	05	4.7		B	FAI	330	51	18	3
9445	30437	MWIL	05	02	1430	N25 E27	05	4.7	5	(D)					
9445		LEAR	05	03	0010	N24 E21	05	4.6		BG	FAI	250	30	19	4
9445		VORO	05	03	0020	N25 E23	05	4.8			DAI	374	10	17	2
9445		KAND	05	03	0700	N25 E19	05	4.8			FSC		22	19	3
9445		SVTO	05	03	0825	N26 E17	05	4.7		B	FAI	200	26	20	2
9445		TACH	05	03	0959	N26 E16	05	4.6			DAI	100	14	17	3
9445	30437	MWIL	05	03	1430	N24 E13	05	4.6	4	(BG)					
9445		HOLL	05	03	1430	N24 E17	05	4.9		BG	FAI	290	41	23	2
9445		RAMY	05	03	1550	N25 E16	05	4.9		BG	FAI	210	20	17	1
9445		LEAR	05	04	0015	N24 E08	05	4.6		BG	FAI	240	34	18	4
9445		SVTO	05	04	0529	N26 E06	05	4.7		B	FAI	300	30	19	3
9445		KAND	05	04	0705	N25 E06	05	4.7			FAC		50	17	3
9445		RAMY	05	04	1218	N26 E03	05	4.7		BG	FAI	380	23	19	2
9445	30437	MWIL	05	04	1430	N24 E01	05	4.7	5	(D)					
9445		HOLL	05	04	1700	N24 W01	05	4.6		BG	FAI	330	67	20	2
9445		LEAR	05	05	0120	N24 W04	05	4.7		BG	FAI	270	34	17	1
9445		TACH	05	05	0540	N26 W09	05	4.5			DAI	287	14	18	4
9445		KAND	05	05	0820	N25 W07	05	4.8			FAC		31	20	3
9445		SVTO	05	05	1025	N25 W09	05	4.7		B	FAI	190	35	19	2
9445		RAMY	05	05	1218	N25 W08	05	4.9		BG	FAI	280	15	19	2
9445	30437	MWIL	05	05	1430	N24 W11	05	4.7	5	(BG)					
9445		HOLL	05	05	1440	N23 W13	05	4.6		BG	FAI	190	42	21	3
9445		VORO	05	06	0121	N25 W17	05	4.7			DAI	229	12	19	2
9445		TACH	05	06	0639	N25 W20	05	4.7			CAI	180	14	18	4
9445	30437	MWIL	05	06	1430	N25 W24	05	4.7	5	(BG)					
9445		HOLL	05	06	1440	N23 W25	05	4.7		BG	FAI	180	34	20	3
9445		VORO	05	07	0011	N26 W31	05	4.6			DAI	159	16	18	2
9445		LEAR	05	07	0101	N25 W30	05	4.7		BG	FAI	80	19	21	4
9445		SVTO	05	07	0548	N25 W32	05	4.8		BG	ESI	160	12	14	3
9445		KAND	05	07	0900	N23 W34	05	4.7			FAO		5	18	3
9445		RAMY	05	07	1320	N26 W37	05	4.7		B	FAI	70	12	17	4
9445		HOLL	05	07	1450	N25 W38	05	4.7		BG	FAI	140	16	20	3
9445	30437	MWIL	05	07	1545	N25 W37	05	4.8	4	(BG)					
9445		LEAR	05	08	0215	N24 W42	05	4.8		B	FAI	80	7	18	3
9445		VORO	05	08	0324	N26 W40	05	5.0			CAO	59	2	9	2
9445		SVTO	05	08	0850	N23 W45	05	4.9		B	FAO	80	5	20	2
9445		KAND	05	08	0955	N25 W45	05	4.9			ESO		2	11	2
9445		RAMY	05	08	1204	N26 W48	05	4.8		B	FAO	50	6	19	4
9445		HOLL	05	08	1421	N24 W50	05	4.7		BG	FAI	160	15	19	4
9445	30437	MWIL	05	08	1430	N25 W49	05	4.8	4	(BG)					
9445		LEAR	05	09	0525	N25 W54	05	5.0		BG	FAO	100	9	19	2
9445		SVTO	05	09	0534	N25 W55	05	5.0		B	EAO	80	5	12	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9445		TACH	05	09	0641	N28	W51	05	5.3			BR	16	4	3	3
9445		KAND	05	09	1335	N25	W55	05	5.3			CSO		3	3	3
9445	30437	MWIL	05	09	1415	N25	W62	05	4.8	4	(BG)					
9445		HOLL	05	09	1751	N24	W68	05	4.5		B	CSO	70	8	21	3
9445		SVTO	05	10	0537	N21	W68	05	5.0		A	HSX	30	1	1	2
9445A		HOLL	04	30	1310	N05	E61	05	5.1		A	AXX		1	1	3
9445A		LEAR	05	03	0010	N07	E24	05	4.8		A	AXX		1		4
9445A		LEAR	05	04	0015	N06	E12	05	4.9		A	AXX		2	1	4
9445A		SVTO	05	04	0529	N05	E09	05	4.9		A	AXX		1		3
9445A		KAND	05	04	0705	N06	E08	05	4.9			AX		1		3
9445A	30445	MWIL	05	04	1430	N06	E03	05	4.8	4	(BP)					
9445A		HOLL	05	04	1700	N05	E00	05	4.7		A	AXX		1		2
9445B	30438	MWIL	04	28	1500	S34	E83	05	5.2	3	AP					
9448A		SVTO	05	03	0825	N23	E44	05	6.7		A	HAX	100	5	3	2
9448		SVTO	05	01	0700	N23	E76	05	7.1		A	HRX	30	1	3	3
9448		RAMY	05	01	1140	N21	E80	05	7.6		A	HSX	70	1	2	3
9448		HOLL	05	01	1420	N21	E78	05	7.6		A	HSX	120	1	2	3
9448	30443	MWIL	05	01	1430	N22	E78	05	7.6	5	(AP)					
9448		LEAR	05	02	0007	N23	E72	05	7.5		A	HSX	120	1	2	3
9448		VORO	05	02	0115	N20	E72	05	7.5			HAX	250	1		2
9448		TACH	05	02	0415	N22	E71	05	7.6			HSX	100	1	3	3
9448		SVTO	05	02	0504	N23	E69	05	7.5		A	HSX	180	1	4	2
9448		KAND	05	02	0740	N21	E68	05	7.5			HA		4	3	2
9448		RAMY	05	02	1220	N21	E66	05	7.6		B	CAO	100	2	3	4
9448		HOLL	05	02	1408	N21	E66	05	7.6		A	HAX	170	4	3	3
9448	30443	MWIL	05	02	1430	N22	E65	05	7.6	5	(AP)					
9448		LEAR	05	03	0010	N22	E58	05	7.5		A	HAX	100	2	1	4
9448		VORO	05	03	0020	N21	E61	05	7.7			HAX	148	1		2
9448		KAND	05	03	0700	N22	E57	05	7.7			HS		2	3	3
9448		SVTO	05	03	0825	N23	E54	05	7.5		A	HAX	100	5	3	2
9448		TACH	05	03	0959	N23	E53	05	7.5			HSX	102	3	1	3
9448		HOLL	05	03	1430	N19	E54	05	7.7		B	DAO	100	8	5	2
9448	30443	MWIL	05	03	1430	N22	E52	05	7.6	5	(AP)					
9448		RAMY	05	03	1550	N21	E51	05	7.6		B	CSO	100	2	3	1
9448		LEAR	05	04	0015	N20	E47	05	7.6		B	CAO	110	5	5	4
9448		SVTO	05	04	0529	N21	E44	05	7.6		B	DAO	150	7	5	3
9448		KAND	05	04	0705	N21	E43	05	7.6			HA		6	4	3
9448		RAMY	05	04	1218	N21	E40	05	7.6		B	CSO	80	2	3	2
9448	30443	MWIL	05	04	1430	N21	E39	05	7.6	5	(AP)					
9448		HOLL	05	04	1700	N20	E37	05	7.5		B	CAO	110	7	3	2
9448		LEAR	05	05	0120	N21	E34	05	7.7		B	DAO	130	5	3	1
9448		TACH	05	05	0540	N22	E30	05	7.5			HSX	160	1	2	4
9448		KAND	05	05	0820	N22	E29	05	7.6			HA		7	3	3
9448		SVTO	05	05	1025	N21	E28	05	7.6		B	CAO	130	5	3	2
9448		RAMY	05	05	1218	N21	E29	05	7.7		B	HSX	110	1	2	2
9448	30443	MWIL	05	05	1430	N21	E26	05	7.6	5	(AP)					
9448		HOLL	05	05	1440	N20	E27	05	7.7		B	CAO	90	8	5	3
9448		VORO	05	06	0121	N22	E21	05	7.7			HAX	150	1		2
9448		TACH	05	06	0639	N21	E18	05	7.6			HSX	200	1	2	4
9448	30443	MWIL	05	06	1430	N21	E13	05	7.6	5	(AP)					
9448		HOLL	05	06	1440	N21	E12	05	7.5		A	HAX	100	4	2	3
9448		VORO	05	07	0011	N21	E08	05	7.6			HHX	196	2		2
9448		LEAR	05	07	0101	N21	E07	05	7.6		B	CSO	100	5	8	4
9448		SVTO	05	07	0548	N21	E03	05	7.5		B	CSO	120	4	5	3
9448		KAND	05	07	0900	N20	E03	05	7.6			HA		3	2	3
9448		RAMY	05	07	1320	N22	E01	05	7.6		B	CSO	140	5	3	4
9448		HOLL	05	07	1450	N22	W01	05	7.5		B	CSO	170	9	6	3
9448	30443	MWIL	05	07	1545	N21	E00	05	7.6	5	(AP)					
9448		LEAR	05	08	0215	N22	W06	05	7.6		A	HSX	110	8	5	3
9448		VORO	05	08	0324	N21	W07	05	7.6			HAX	244	8		2
9448		SVTO	05	08	0850	N22	W08	05	7.7		B	CAO	120	6	5	2
9448		KAND	05	08	0955	N23	W10	05	7.6			CSO		3	5	2
9448		RAMY	05	08	1204	N22	W10	05	7.7		B	CSO	120	8	5	4
9448		HOLL	05	08	1421	N21	W12	05	7.7		B	CSO	110	8	6	4
9448	30443	MWIL	05	08	1430	N22	W12	05	7.7	5	(BG)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9448		LEAR	05 09 0525	N21	W21	05 7.6		B	CSO	120	5	4	2
9448		SVTO	05 09 0534	N21	W18	05 7.8		B	CSO	110	2	8	3
9448		TACH	05 09 0641	N22	W21	05 7.7			HSX	200	1	2	3
9448		KAND	05 09 1335	N21	W24	05 7.7			HS		1	2	3
9448	30443	MWIL	05 09 1415	N22	W24	05 7.7	5	(BP)					
9448		HOLL	05 09 1751	N21	W29	05 7.5		A	HSX	100	3	2	3
9448		LEAR	05 10 0332	N21	W33	05 7.6		A	HSX	100	4	3	4
9448		SVTO	05 10 0537	N21	W34	05 7.6		A	HSX	120	2	3	2
9448		KAND	05 10 0605	N21	W33	05 7.7			HS		2	3	3
9448		TACH	05 10 0725	N22	W36	05 7.5			HSX	180	1	2	3
9448		RAMY	05 10 1245	N22	W38	05 7.6		A	HSX	80	1	2	1
9448		HOLL	05 10 1350	N20	W39	05 7.6		A	HAX	110	1	2	4
9448	30443	MWIL	05 10 1430	N22	W39	05 7.6	5	(AP)					
9448		VORO	05 10 2117	N21	W42	05 7.7			HAX	181	1		2
9448		LEAR	05 11 0230	N21	W46	05 7.6		A	HSX	90	1	2	3
9448		SVTO	05 11 0520	N21	W47	05 7.6		A	HSX	130	1	3	3
9448		KAND	05 11 0645	N22	W47	05 7.7			HS		1	2	3
9448		TACH	05 11 0651	N22	W46	05 7.8			HSX	110	1	2	3
9448		RAMY	05 11 1203	N23	W51	05 7.6		A	HSX	100	1	2	2
9448	30443	MWIL	05 11 1430	N22	W51	05 7.7	5	(AP)					
9448		HOLL	05 11 1445	N21	W53	05 7.5		A	HAX	140	2	2	4
9448		VORO	05 11 2115	N21	W55	05 7.7			HAX	170	1		2
9448		LEAR	05 12 0220	N22	W59	05 7.6		A	HAX	100	1	2	2
9448		KAND	05 12 0550	N21	W59	05 7.7			HS		2	2	3
9448		SVTO	05 12 0840	N21	W62	05 7.6		A	HAX	90	1	2	3
9448		RAMY	05 12 1340	N23	W64	05 7.6		A	HSX	100	1	2	3
9448		HOLL	05 12 1503	N23	W66	05 7.5		A	HSX	110	1	2	1
9448		VORO	05 12 2107	N21	W68	05 7.7			HAX	149	1		2
9448	30443	MWIL	05 12 2200	N22	W68	05 7.7	3	(AP)					
9448		LEAR	05 13 0145	N21	W72	05 7.5		A	HSX	60	1	2	3
9448		SVTO	05 13 0515	N23	W73	05 7.6		A	HSX	120	1	4	3
9448		TACH	05 13 0519	N22	W74	05 7.5			HSX	70	1	1	2
9448		KAND	05 13 0935	N22	W77	05 7.5			HS		1	2	3
9448		RAMY	05 13 1115	N23	W79	05 7.4		A	HSX	90	1	2	3
9448	30443	MWIL	05 13 1345	N21	W78	05 7.6	4	(AP)					
9453		LEAR	05 09 0525	S08	W18	05 7.9		B	BXO	10	4	3	2
9453		SVTO	05 09 0534	S09	W18	05 7.9		A	AXX	10	3	4	3
9453		TACH	05 09 0641	S06	W19	05 7.8			BR	8	3	2	3
9453		KAND	05 09 1335	S07	W21	05 8.0			CAO		3	4	3
9453	30448	MWIL	05 09 1415	S07	W23	05 7.9	5	(B)					
9453		HOLL	05 09 1751	S08	W25	05 7.9		B	CSO	30	6	4	3
9453		LEAR	05 10 0332	S08	W29	05 8.0		A	HRX		1		4
9453		SVTO	05 10 0537	S07	W32	05 7.8		B	CRO	30	4	6	2
9453		KAND	05 10 0605	S07	W29	05 8.1			AX		1	1	3
9453		TACH	05 10 0725	S07	W31	05 8.0			AXX	3	1	1	3
9453	30448	MWIL	05 10 1430	S07	W35	05 8.0	3	(AF)					
9449		LEAR	05 02 0007	S14	E81	05 8.1		A	HSX	110	1	2	3
9449		VORO	05 02 0115	S16	E81	05 8.2			HAX	66	1		2
9449		TACH	05 02 0415	S16	E83	05 8.5			HSX	10	1	1	3
9449		SVTO	05 02 0504	S13	E80	05 8.2		A	HSX	120	1	3	2
9449		KAND	05 02 0740	S16	E82	05 8.5			HS		1	2	2
9449		RAMY	05 02 1220	S16	E75	05 8.2		A	HSX	90	1	1	4
9449		HOLL	05 02 1408	S16	E76	05 8.3		A	HSX	120	2	2	3
9449	30444	MWIL	05 02 1430	S16	E76	05 8.4	5	(AP)					
9449		LEAR	05 03 0010	S15	E70	05 8.3		A	HSX	50	1	2	4
9449		VORO	05 03 0020	S16	E71	05 8.4			HAX	160	1		2
9449		KAND	05 03 0700	S15	E68	05 8.4			HS		1	2	3
9449		SVTO	05 03 0825	S14	E64	05 8.2		A	HRX	50	1	2	2
9449		TACH	05 03 0959	S15	E64	05 8.3			HSX	100	1	1	3
9449	30444	MWIL	05 03 1430	S16	E62	05 8.3	4	(AP)					
9449		HOLL	05 03 1430	S18	E63	05 8.4		A	HAX	120	1	2	2
9449		RAMY	05 03 1550	S18	E62	05 8.4		A	HSX	80	1	2	1
9449		LEAR	05 04 0015	S17	E57	05 8.3		A	HSX	70	1	1	4
9449		SVTO	05 04 0529	S16	E54	05 8.3		A	HSX	100	1	2	3
9449		KAND	05 04 0705	S16	E54	05 8.4			HS		1	2	3
9449		RAMY	05 04 1218	S17	E49	05 8.2		A	HSX	90	1	2	2
9449	30444	MWIL	05 04 1430	S16	E49	05 8.3	5	(AP)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9449		HOLL	05	04	1700	S18	E47	05	8.3		A	HAX	80	1	2	2
9449		LEAR	05	05	0120	S17	E43	05	8.3		A	HSX	110	2	2	1
9449		TACH	05	05	0540	S15	E40	05	8.3			HSX	100	1	1	4
9449		KAND	05	05	0820	S16	E39	05	8.3			HA		3	2	3
9449		SVTO	05	05	1025	S16	E38	05	8.3		A	HAX	90	2	2	2
9449		RAMY	05	05	1218	S17	E38	05	8.4		A	HSX	70	1	2	2
9449	30444	MWIL	05	05	1430	S16	E36	05	8.3	5	(AP)					
9449		HOLL	05	05	1440	S17	E36	05	8.3		A	HAX	100	2	2	3
9449		VORO	05	06	0121	S17	E30	05	8.3			HAX	94	1		2
9449		TACH	05	06	0639	S17	E27	05	8.3			HSX	150	2	2	4
9449	30444	MWIL	05	06	1430	S16	E23	05	8.3	5	(AP)					
9449		HOLL	05	06	1440	S17	E22	05	8.3		A	HAX	80	2	2	3
9449		VORO	05	07	0011	S17	E17	05	8.3			HAX	148	2		2
9449		LEAR	05	07	0101	S17	E17	05	8.3		A	HAX	90	2	2	4
9449		SVTO	05	07	0548	S17	E14	05	8.3		A	HAX	100	2	3	3
9449		KAND	05	07	0900	S16	E13	05	8.4			HA		3	2	3
9449		RAMY	05	07	1320	S16	E10	05	8.3		A	HAX	90	2	2	4
9449		HOLL	05	07	1450	S17	E09	05	8.3		B	CAO	80	3	7	3
9449	30444	MWIL	05	07	1545	S17	E11	05	8.5	5	(BP)					
9449		LEAR	05	08	0215	S16	E04	05	8.4		A	HAX	80	2	3	3
9449		VORO	05	08	0324	S17	E03	05	8.4			HAX	109	2		2
9449		SVTO	05	08	0850	S16	E01	05	8.4		A	HRX	80	2	3	2
9449		KAND	05	08	0955	S15	E01	05	8.5			HA		2	2	2
9449		RAMY	05	08	1204	S15	W02	05	8.3		B	DSO	70	3	3	4
9449		HOLL	05	08	1421	S17	W01	05	8.5		B	CSO	60	7	6	4
9449	30444	MWIL	05	08	1430	S17	W02	05	8.4	5	(BP)					
9449		LEAR	05	09	0525	S15	W11	05	8.4		B	CSO	60	7	2	2
9449		SVTO	05	09	0534	S16	W12	05	8.3		B	DAO	60	4	3	3
9449		TACH	05	09	0641	S15	W13	05	8.3			HSX	63	2	2	3
9449		KAND	05	09	1335	S15	W15	05	8.4			HS		3	2	3
9449	30444	MWIL	05	09	1415	S15	W17	05	8.3	5	(BP)					
9449		HOLL	05	09	1751	S16	W18	05	8.4		A	HAX	50	5	2	3
9449		LEAR	05	10	0332	S17	W23	05	8.4		B	DSO	60	4	4	4
9449		SVTO	05	10	0537	S15	W25	05	8.3		B	DAO	70	4	4	2
9449		KAND	05	10	0605	S15	W24	05	8.4			HS		7	2	3
9449		TACH	05	10	0725	S15	W26	05	8.3			HSX	53	4	2	3
9449		RAMY	05	10	1245	S16	W28	05	8.4		B	CSO	30	3	3	1
9449		HOLL	05	10	1350	S17	W28	05	8.4		B	CSI	60	8	3	4
9449	30444	MWIL	05	10	1430	S15	W30	05	8.3	4	(AP)					
9449		VORO	05	10	2117	S16	W34	05	8.3			HAX	54	1		2
9449		LEAR	05	11	0230	S17	W37	05	8.3		B	CSO	20	2	1	3
9449		SVTO	05	11	0520	S16	W37	05	8.4		B	CSO	20	3	3	3
9449		KAND	05	11	0645	S16	W38	05	8.4			HS		2	1	3
9449		TACH	05	11	0651	S15	W38	05	8.4			AXX	10	1	1	3
9449		RAMY	05	11	1203	S15	W43	05	8.2		A	HSX	10	1	1	2
9449	30444	MWIL	05	11	1430	S15	W43	05	8.3	4	(AP)					
9449		HOLL	05	11	1445	S16	W43	05	8.3		B	CAO	30	2	2	4
9449		VORO	05	11	2115	S16	W47	05	8.3			AXX	6	1		2
9449		LEAR	05	12	0220	S15	W49	05	8.4		A	AXX	10	2	2	2
9449		KAND	05	12	0550	S15	W50	05	8.4			BXO		3	3	4
9449		SVTO	05	12	0840	S16	W53	05	8.3		A	AXX	10	2	1	3
9449		RAMY	05	12	1340	S15	W56	05	8.3		A	AXX	10	1	1	3
9449		HOLL	05	12	1503	S17	W57	05	8.3		A	AXX	10	1	1	1
9449A		HOLL	05	08	1421	N48	E18	05	10.1		A	AXX	10	1	1	4
9451		RAMY	05	04	1218	S22	E80	05	10.7		A	HSX	60	1	3	2
9451	30446	MWIL	05	04	1430	S21	E83	05	11.0	5	AP					
9451		HOLL	05	04	1700	S22	E80	05	10.8		A	HAX	110	1	2	2
9451		LEAR	05	05	0120	S22	E76	05	10.9		A	HAX	120	1	2	1
9451		TACH	05	05	0540	S21	E77	05	11.1			HSX	90	1	1	4
9451		KAND	05	05	0820	S20	E74	05	11.0			HS		2	2	3
9451		SVTO	05	05	1025	S22	E71	05	10.9		A	HSX	120	1	2	2
9451		RAMY	05	05	1218	S23	E73	05	11.1		A	HSX	220	1	4	2
9451	30446	MWIL	05	05	1430	S22	E70	05	11.0	5	(AP)					
9451		HOLL	05	05	1440	S22	E71	05	11.1		A	HAX	170	1	2	3
9451		VORO	05	06	0121	S21	E64	05	11.0			HAX	171	1		2
9451		TACH	05	06	0639	S22	E64	05	11.2			HSX	100	1	2	4
9451	30446	MWIL	05	06	1430	S21	E56	05	10.9	5	(AP)					

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9451		HOLL	05	06	1440	S20	E57	05	11.0		A	HAX	70	1	2	3
9451		VORO	05	07	0011	S21	E52	05	11.0			HAX	192	1		2
9451		LEAR	05	07	0101	S22	E50	05	10.9		A	HSX	110	1	2	4
9451		SVTO	05	07	0548	S21	E49	05	11.0		B	CSO	160	2	4	3
9451		KAND	05	07	0900	S20	E46	05	10.9			HS		2	2	3
9451		RAMY	05	07	1320	S21	E43	05	10.8		B	CSO	110	2	2	4
9451		HOLL	05	07	1450	S21	E42	05	10.8		A	HAX	120	3	2	3
9451	30446	MWIL	05	07	1545	S22	E43	05	11.0	5	(AP)					
9451		LEAR	05	08	0215	S22	E37	05	10.9		A	HAX	110	3	3	3
9451		VORO	05	08	0324	S21	E36	05	10.9			HAX	187	3		2
9451		SVTO	05	08	0850	S21	E35	05	11.0		B	CAO	130	3	5	2
9451		KAND	05	08	0955	S20	E33	05	10.9			CSO		2	3	2
9451		RAMY	05	08	1204	S20	E32	05	10.9		A	HSX	120	2	3	4
9451		HOLL	05	08	1421	S21	E31	05	11.0		A	HAX	110	5	3	4
9451	30446	MWIL	05	08	1430	S21	E30	05	10.9	5	(BP)					
9451		LEAR	05	09	0525	S21	E23	05	11.0		B	CSO	150	5	5	2
9451		SVTO	05	09	0534	S21	E23	05	11.0		B	CAO	150	3	6	3
9451		TACH	05	09	0641	S21	E21	05	10.9			HSX	150	1	2	3
9451		KAND	05	09	1335	S20	E20	05	11.1			CAO		5	4	3
9451	30446	MWIL	05	09	1415	S21	E17	05	10.9	5	(BP)					
9451		HOLL	05	09	1751	S20	E17	05	11.0		B	CAO	110	10	7	3
9451		LEAR	05	10	0332	S21	E10	05	10.9		B	CAO	110	5	4	4
9451		SVTO	05	10	0537	S21	E09	05	10.9		B	CAO	100	4	4	2
9451		KAND	05	10	0605	S20	E10	05	11.0			CAO		5	3	3
9451		TACH	05	10	0725	S21	E07	05	10.8			HSX	220	1	2	3
9451		RAMY	05	10	1245	S21	E04	05	10.8		A	HSX	160	2	2	1
9451		HOLL	05	10	1350	S21	E06	05	11.0		B	CKO	150	8	4	4
9451	30446	MWIL	05	10	1430	S21	E04	05	10.9	5	(BP)					
9451		VORO	05	10	2117	S21	E00	05	10.9			HAX	196	5		2
9451		LEAR	05	11	0230	S22	E01	05	11.2		B	CSO	100	7	3	3
9451		SVTO	05	11	0520	S21	W03	05	11.0		B	DSO	150	5	5	3
9451		KAND	05	11	0645	S20	W03	05	11.0			CSO		6	4	3
9451		TACH	05	11	0651	S21	W03	05	11.0			HAI	302	3	3	3
9451		RAMY	05	11	1203	S21	W07	05	11.0		B	CSO	100	3	4	2
9451	30446	MWIL	05	11	1430	S21	W09	05	10.9	5	(BP)					
9451		HOLL	05	11	1445	S22	W08	05	11.0		B	CKO	140	10	5	4
9451		VORO	05	11	2115	S21	W13	05	10.9			HAX	224	9		2
9451		LEAR	05	12	0220	S21	W15	05	10.9		B	CSO	110	5	4	2
9451		KAND	05	12	0550	S20	W17	05	10.9			CAO		6	4	4
9451		SVTO	05	12	0840	S21	W18	05	11.0		B	CSO	130	4	4	3
9451		RAMY	05	12	1340	S21	W22	05	10.9		B	CSO	140	3	3	3
9451		HOLL	05	12	1503	S22	W22	05	10.9		B	CSO	170	4	4	1
9451		VORO	05	12	2107	S21	W26	05	10.9			HAX	182	1		2
9451	30446	MWIL	05	12	2200	S21	W28	05	10.8	5	(AP)					
9451		LEAR	05	13	0145	S21	W29	05	10.8		A	HSX	120	2	2	3
9451		SVTO	05	13	0515	S22	W29	05	11.0		B	DSO	150	8	5	3
9451		TACH	05	13	0519	S21	W28	05	11.1			CAO	102	3	3	2
9451		KAND	05	13	0935	S20	W31	05	11.0			CSO		5	5	3
9451		RAMY	05	13	1115	S22	W32	05	11.0		B	DSO	90	4	6	3
9451	30446	MWIL	05	13	1345	S21	W34	05	11.0	5	(BP)					
9451		VORO	05	13	2144	S22	W38	05	11.0			DAO	245	3	4	3
9451		LEAR	05	14	0015	S22	W38	05	11.1		B	DSO	130	6	5	2
9451		SVTO	05	14	0515	S22	W43	05	10.9		B	CSO	160	5	7	3
9451		TACH	05	14	0541	S22	W42	05	11.0			DAO	199	5	4	3
9451		KAND	05	14	0820	S22	W43	05	11.0			CSO		5	6	3
9451		RAMY	05	14	1210	S21	W46	05	11.0		B	DSO	100	5	7	5
9451	30446	MWIL	05	14	1400	S21	W48	05	10.9	5	(BP)					
9451		HOLL	05	14	1711	S22	W48	05	11.0		B	CAO	110	4	7	2
9451		VORO	05	14	2114	S21	W53	05	10.8			HAX	281	1		2
9451		LEAR	05	15	0138	S21	W56	05	10.8		A	HSX	100	1	2	3
9451		TACH	05	15	0532	S20	W58	05	10.8			HSX	110	1	1	3
9451		SVTO	05	15	0638	S21	W57	05	10.9		A	HSX	140	1	3	2
9451		KAND	05	15	0740	S22	W58	05	10.9			HS		1	2	4
9451		RAMY	05	15	1235	S19	W60	05	10.9		A	HSX	80	1	2	1
9451	30446	MWIL	05	15	1400	S21	W62	05	10.8	5	(AP)					
9451		HOLL	05	15	1740	S21	W66	05	10.7		A	HAX	130	1	3	3
9451		LEAR	05	16	0005	S22	W67	05	10.8		A	HAX	100	1	1	3
9451		VORO	05	16	0030	S21	W68	05	10.8			HAX	84	1		2
9451		SVTO	05	16	0800	S22	W73	05	10.7		A	HSX	100	1	3	2

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9451		TACH	05	16	0839	S19	W74	05	10.7			HSX	140	1	2	3
9451		KAND	05	16	0925	S21	W73	05	10.8			HS		2	5	2
9451	30446	MWIL	05	16	1415	S21	W75	05	10.8	5	(AP)					
9451		HOLL	05	16	1510	S18	W78	05	10.7		A	HAX	120	1	3	3
9451		RAMY	05	16	1930	S18	W82	05	10.6		A	HSX	60	1	2	1
9451		VORO	05	16	2324	S21	W83	05	10.6			HAX	327	1		2
9451		LEAR	05	17	0015	S20	W80	05	10.9		A	HAX	60	1	1	4
9451		TACH	05	17	0507	S19	W82	05	10.9			HSX	60	1	3	4
9451A		LEAR	05	07	0101	N17	E56	05	11.3		A	AXX	10	2	2	4
9458		KAND	05	14	0820	S12	W37	05	11.5			BXO		2	1	3
9458		RAMY	05	14	1210	S11	W39	05	11.6		B	CSO	10	3	1	5
9458	30453	MWIL	05	14	1400	S12	W40	05	11.6	4	(B)					
9458		HOLL	05	14	1711	S12	W42	05	11.5		B	CSO	50	4	3	2
9458		VORO	05	14	2114	S12	W44	05	11.6			HRX	69	3		2
9458		LEAR	05	15	0138	S12	W48	05	11.4		B	CAO	40	8	3	3
9458		TACH	05	15	0532	S11	W50	05	11.5			CAO	69	5	3	3
9458		SVTO	05	15	0638	S12	W49	05	11.6		B	CSO	60	5	4	2
9458		KAND	05	15	0740	S13	W50	05	11.5			DAO		6	5	4
9458		RAMY	05	15	1235	S10	W52	05	11.6		B	DSO	70	5	5	1
9458	30453	MWIL	05	15	1400	S12	W54	05	11.5	4	(B)					
9458		HOLL	05	15	1740	S13	W58	05	11.3		B	BXO	20	6	5	3
9458		LEAR	05	16	0005	S12	W59	05	11.5		B	DSO	30	5	5	3
9458		VORO	05	16	0030	S10	W63	05	11.3			HRX	68	2		2
9458		SVTO	05	16	0800	S13	W63	05	11.6		B	DAO	40	5	8	2
9458		TACH	05	16	0839	S10	W61	05	11.8			AXX	10	1	1	3
9458		KAND	05	16	0925	S12	W64	05	11.6			CSO		5	8	2
9458	30453	MWIL	05	16	1415	S12	W67	05	11.5	4	(BF)					
9458		HOLL	05	16	1510	S11	W69	05	11.4		B	BXO	20	6	6	3
9458		RAMY	05	16	1930	S09	W69	05	11.6		B	DSO	40	2	3	1
9458		VORO	05	16	2324	S12	W71	05	11.6			HAX	69	1		2
9458		LEAR	05	17	0015	S12	W71	05	11.7		B	DAO	40	4	6	4
9458		TACH	05	17	0507	S10	W75	05	11.6			HSX	40	1	1	4
9458		SVTO	05	17	0947	S11	W77	05	11.6		A	HSX	60	1	3	2
9458		KAND	05	17	1045	S11	W76	05	11.7			HA		1	2	
9458		HOLL	05	17	1345	S10	W79	05	11.6		A	HSX	60	1	2	3
9458	30453	MWIL	05	17	1400	S12	W79	05	11.6	4	(BF)					
9456		RAMY	05	11	1203	N06	E14	05	12.5		B	DSO	20	2	4	2
9456	30451	MWIL	05	11	1430	N06	E14	05	12.6	4	(B)					
9456		HOLL	05	11	1445	N06	E13	05	12.6		B	CAO	30	5	5	4
9456		VORO	05	11	2115	N06	E10	05	12.6			CAI	51	9	5	2
9456		LEAR	05	12	0220	N07	E08	05	12.7		B	DAO	40	9	6	2
9456		KAND	05	12	0550	N06	E06	05	12.7			CAO		16	6	4
9456		SVTO	05	12	0840	N06	E04	05	12.7		B	DAO	70	11	6	3
9456		RAMY	05	12	1340	N06	E01	05	12.6		B	DSO	60	8	6	3
9456		HOLL	05	12	1503	N06	E00	05	12.6		B	DAO	110	15	7	1
9456		VORO	05	12	2107	N06	W04	05	12.6			DAI	181	5	6	2
9456	30451	MWIL	05	12	2200	N06	W04	05	12.6	4	(BF)					
9456		LEAR	05	13	0145	N07	W07	05	12.5		B	DAO	90	12	7	3
9456		SVTO	05	13	0515	N07	W08	05	12.6		B	DAO	60	17	7	3
9456		TACH	05	13	0519	N06	W08	05	12.6			CAI	152	6	6	2
9456		KAND	05	13	0935	N06	W10	05	12.6			DAO		9	8	3
9456		RAMY	05	13	1115	N04	W12	05	12.6		B	DAO	40	4	7	3
9456	30451	MWIL	05	13	1345	N06	W12	05	12.7	5	(BF)					
9456		VORO	05	13	2144	N06	W18	05	12.5			CAI	122	5	6	3
9456		LEAR	05	14	0015	N06	W19	05	12.6		B	DAO	60	10	6	2
9456		SVTO	05	14	0515	N05	W22	05	12.6		B	CAO	70	10	8	3
9456		TACH	05	14	0541	N06	W24	05	12.4			CSI	93	7	7	3
9456		KAND	05	14	0820	N06	W21	05	12.8			CSI		12	7	3
9456		RAMY	05	14	1210	N06	W26	05	12.6		B	DSO	50	6	6	5
9456	30451	MWIL	05	14	1400	N06	W26	05	12.6	4	(BF)					
9456		HOLL	05	14	1711	N07	W28	05	12.6		B	CSO	60	3	6	2
9456		VORO	05	14	2114	N06	W30	05	12.6			CRO	109	3	4	2
9456		LEAR	05	15	0138	N07	W34	05	12.5		B	DSO	50	11	6	3
9456		TACH	05	15	0532	N07	W35	05	12.6			CSI	58	4	6	3
9456		SVTO	05	15	0638	N07	W35	05	12.6		B	CSO	40	5	6	2
9456		KAND	05	15	0740	N06	W35	05	12.7			CSO		5	7	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9456	30451	RAMY	05	15	1235	N09	W39	05	12.6		B	DSO	50	10	6	1
9456		MWIL	05	15	1400	N06	W39	05	12.7	4	(B)					
9456		HOLL	05	15	1740	N05	W42	05	12.6		B	DAO	50	8	8	3
9456		LEAR	05	16	0005	N06	W46	05	12.6		B	DAO	60	5	7	3
9456		VORO	05	16	0030	N07	W47	05	12.5			CAO	124	2	7	2
9456		SVTO	05	16	0800	N06	W51	05	12.5		B	DAO	80	6	7	2
9456		TACH	05	16	0839	N08	W51	05	12.5			DSO	160	2	7	3
9456		KAND	05	16	0925	N06	W51	05	12.6			DSO		4	9	2
9456		MWIL	05	16	1415	N06	W53	05	12.6	5	(B)					
9456		HOLL	05	16	1510	N06	W57	05	12.4		B	DAO	120	3	9	3
9456	30451	RAMY	05	16	1930	N09	W57	05	12.5		B	DSO	100	2	8	1
9456		VORO	05	16	2324	N05	W60	05	12.5			DAO	140	2	9	2
9456		LEAR	05	17	0015	N07	W60	05	12.5		B	DAO	50	8	9	4
9456		TACH	05	17	0507	N08	W63	05	12.5			DSO	66	3	8	4
9456		SVTO	05	17	0947	N07	W66	05	12.5		B	DAO	50	3	9	2
9456		KAND	05	17	1045	N07	W68	05	12.3			ESO		3	11	4
9456		HOLL	05	17	1345	N08	W69	05	12.4		B	DAO	120	3	10	3
9456		MWIL	05	17	1400	N06	W67	05	12.6	4	(B)					
9456		KAND	05	18	0640	N06	W75	05	12.7			BXO		7	7	3
9452	30447	LEAR	05	07	0101	S09	E78	05	12.9		A	AXX	10	1		4
9452		SVTO	05	07	0548	S08	E78	05	13.1		A	HSX	30	1	1	3
9452		KAND	05	07	0900	S09	E74	05	12.9			AX		1	1	3
9452		RAMY	05	07	1320	S09	E72	05	12.9		A	HSX	20	1	1	4
9452		HOLL	05	07	1450	S09	E72	05	13.0		A	AXX	30	1	1	3
9452		MWIL	05	07	1545	S10	E73	05	13.1	6	(AP)					
9452		LEAR	05	08	0215	S10	E65	05	13.0		A	AXX	10	1	1	3
9452		VORO	05	08	0324	S09	E65	05	13.0			HAX	37	1		2
9452		SVTO	05	08	0850	S08	E62	05	13.0		A	AXX	20	1	1	2
9452		KAND	05	08	0955	S08	E62	05	13.1			AX		1	1	2
9452	30447	RAMY	05	08	1204	S09	E60	05	13.0		A	HSX	20	1	1	4
9452		HOLL	05	08	1421	S09	E59	05	13.0		A	AXX	20	1	1	4
9452		MWIL	05	08	1430	S09	E59	05	13.0	4	(AP)					
9452		LEAR	05	09	0525	S09	E51	05	13.0		A	AXX	10	2	1	2
9452		SVTO	05	09	0534	S09	E51	05	13.0		A	HSX	30	1	1	3
9452		TACH	05	09	0641	S09	E51	05	13.1			AXX	5	1	1	3
9452		KAND	05	09	1335	S08	E47	05	13.1			HS		1	1	3
9452		MWIL	05	09	1415	S10	E46	05	13.0	4	(AP)					
9452		HOLL	05	09	1751	S08	E43	05	13.0		A	AXX	10	1	1	3
9452		LEAR	05	10	0332	S09	E38	05	13.0		A	HRX		1		4
9452	30447	SVTO	05	10	0537	S09	E37	05	13.0		A	HRX	10	1	1	2
9452		KAND	05	10	0605	S09	E38	05	13.1			AX		1	1	3
9452		TACH	05	10	0725	S10	E36	05	13.0			AXX	5	1	1	3
9452		RAMY	05	10	1245	S10	E33	05	13.0		A	AXX	10	1		1
9452		HOLL	05	10	1350	S09	E33	05	13.0		B	CAO	30	4	5	4
9452		MWIL	05	10	1430	S10	E32	05	13.0	4	(AP)					
9452		VORO	05	10	2117	S10	E29	05	13.1			AXX	14	1		2
9452		LEAR	05	11	0230	S09	E26	05	13.0		A	AXX		1		3
9452		SVTO	05	11	0520	S09	E24	05	13.0		A	AXX	10	1		3
9452		KAND	05	11	0645	S09	E24	05	13.1			AX		1		3
9452		TACH	05	11	0651	S10	E24	05	13.1			AXX	2	1	1	3
9452	30447	RAMY	05	11	1203	S10	E20	05	13.0		A	AXX	10	1		2
9452		MWIL	05	11	1430	S10	E19	05	13.0	4	(AP)					
9452		HOLL	05	11	1445	S09	E19	05	13.0		A	AXX	10	1	1	4
9452		LEAR	05	12	0220	S09	E12	05	13.0		A	AXX	10	1	1	2
9452		KAND	05	12	0550	S09	E11	05	13.1			AX		1		4
9452		SVTO	05	12	0840	S10	E11	05	13.2		B	BXO		2	6	3
9452		LEAR	05	15	0138	S13	W25	05	13.2		B	BXO	50	3	4	3
9452		SVTO	05	15	0638	S12	W27	05	13.2		B	BXO	10	2	4	2
9455	30449	RAMY	05	10	1245	S17	E36	05	13.3		B	BXO	20	2	3	1
9455		HOLL	05	10	1350	S17	E36	05	13.3		B	CAO	20	3	3	4
9455		MWIL	05	10	1430	S17	E35	05	13.3	4	(B)					
9455		VORO	05	10	2117	S18	E31	05	13.2			HRX	59	2	1	2
9455		LEAR	05	11	0230	S17	E28	05	13.2		B	DAO	30	12	3	3
9455		SVTO	05	11	0520	S17	E27	05	13.3		B	DAO	110	9	5	3
9455		KAND	05	11	0645	S17	E28	05	13.4			DSO		6	5	3
9455		TACH	05	11	0651	S18	E27	05	13.3			HAX	260	4	3	3
9455		RAMY	05	11	1203	S18	E20	05	13.0		B	DSO	120	5	9	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9455	30449	MWIL	05	11	1430	S18	E22	05	13.3	5	(D)					
9455		HOLL	05	11	1445	S18	E22	05	13.3		B	DSI	140	18	6	4
9455		VORO	05	11	2115	S18	E17	05	13.2			DAI	227	12	8	2
9455		LEAR	05	12	0220	S16	E15	05	13.2		BG	DAO	120	25	9	2
9455		KAND	05	12	0550	S17	E14	05	13.3			DAI		27	10	4
9455		SVTO	05	12	0840	S17	E11	05	13.2		B	DAO	200	23	10	3
9455		RAMY	05	12	1340	S18	E08	05	13.2		B	DAO	220	18	10	3
9455		HOLL	05	12	1503	S17	E07	05	13.1		B	EAO	250	26	11	1
9455		VORO	05	12	2107	S18	E04	05	13.2			DAI	440	14	10	2
9455	30449	MWIL	05	12	2200	S18	E04	05	13.2	5	(BG)					
9455		LEAR	05	13	0145	S18	E01	05	13.1		BG	EAI	180	25	12	3
9455		SVTO	05	13	0515	S18	W01	05	13.1		BG	EAI	240	24	12	3
9455		TACH	05	13	0519	S17	W03	05	13.0			DAI	285	9	9	2
9455		KAND	05	13	0935	S17	W01	05	13.3			EAI		12	11	3
9455		RAMY	05	13	1115	S18	W04	05	13.2		B	ESI	70	18	12	3
9455	30449	MWIL	05	13	1345	S17	W05	05	13.2	5	(BG)					
9455		VORO	05	13	2144	S18	W10	05	13.1			DRI	308	8	11	3
9455		LEAR	05	14	0015	S18	W12	05	13.1		BG	EAO	160	21	11	2
9455		SVTO	05	14	0515	S16	W14	05	13.1		BG	FAI	190	30	16	3
9455		TACH	05	14	0541	S17	W16	05	13.0			DAI	300	14	12	3
9455		KAND	05	14	0820	S18	W15	05	13.2			EAI		40	15	3
9455		RAMY	05	14	1210	S17	W18	05	13.1		BG	EAI	150	30	15	5
9455	30449	MWIL	05	14	1400	S17	W18	05	13.2	5	(BG)					
9455		HOLL	05	14	1711	S15	W21	05	13.1		BG	FAI	240	34	18	2
9455		VORO	05	14	2114	S19	W24	05	13.0			EAI	490	11	14	2
9455		LEAR	05	15	0138	S17	W27	05	13.0		BG	FAI	200	30	16	3
9455		TACH	05	15	0532	S17	W30	05	12.9			DSI	380	9	12	3
9455		SVTO	05	15	0638	S18	W28	05	13.1		BG	FAI	200	13	16	2
9455		KAND	05	15	0740	S19	W29	05	13.1			FSI		22	16	4
9455		RAMY	05	15	1235	S16	W32	05	13.1		BG	EAO	140	15	15	1
9455	30449	MWIL	05	15	1400	S17	W33	05	13.1	5	(BG)					
9455		HOLL	05	15	1740	S18	W35	05	13.1		BG	FAI	170	22	17	3
9455		LEAR	05	16	0005	S18	W38	05	13.1		BG	FAI	130	20	17	3
9455		VORO	05	16	0030	S19	W39	05	13.0			EAI	438	12	15	2
9455		SVTO	05	16	0800	S18	W44	05	13.0		B	FAI	160	25	17	2
9455		TACH	05	16	0839	S17	W44	05	13.0			DAI	438	8	16	3
9455		KAND	05	16	0925	S18	W44	05	13.0			FAO		16	16	2
9455	30449	MWIL	05	16	1415	S17	W47	05	13.0	4	(BG)					
9455		HOLL	05	16	1510	S16	W48	05	13.0		BG	FAI	130	38	16	3
9455		RAMY	05	16	1930	S16	W50	05	13.0		B	FSO	180	13	16	1
9455		VORO	05	16	2324	S19	W52	05	13.0			EAI	701	10	16	2
9455		LEAR	05	17	0015	S16	W52	05	13.1		BG	FAI	180	37	16	4
9455		TACH	05	17	0507	S16	W56	05	13.0			DAI	277	17	25	4
9455		SVTO	05	17	0947	S18	W56	05	13.1		B	FAO	240	14	18	2
9455		KAND	05	17	1045	S17	W59	05	13.0			FAI		16	18	4
9455		HOLL	05	17	1345	S15	W66	05	12.6		BG	FAI	280	18	18	3
9455	30449	MWIL	05	17	1400	S17	W60	05	13.0	5	(BG)					
9455		VORO	05	18	0304	S19	W71	05	12.7			DAI	704	9	7	2
9455		KAND	05	18	0640	S18	W70	05	12.9			FSI		21	20	3
9455		SVTO	05	18	0840	S17	W72	05	12.9		B	EAI	290	14	12	2
9455		RAMY	05	18	1340	S18	W74	05	12.9		B	ESO	140	6	12	2
9455		HOLL	05	18	1358	S17	W76	05	12.8		B	FAO	200	22	21	3
9455	30449	MWIL	05	18	1400	S17	W75	05	12.9	4	(B)					
9455		VORO	05	18	2247	S17	W77	05	13.1			HAX	343	5		2
9455		SVTO	05	19	0931	S17	W84	05	13.0		B	CSO	60	2	6	2
9455		KAND	05	19	1015	S18	W83	05	13.1			HA		1	2	2
9455	30449	MWIL	05	19	1415	S17	W87	05	13.0	4	AF					
9455A		LEAR	05	12	0145	S09	E15	05	13.2		B	BXO		2	1	3
9455A	30454	MWIL	05	14	1400	S11	W18	05	13.2	4	(B)					
9459		LEAR	05	14	0015	N26	E04	05	14.3		B	BXO	10	2	2	2
9459		SVTO	05	14	0515	N26	E01	05	14.3		B	CRO	20	2	3	3
9459		KAND	05	14	0820	N26	E00	05	14.3			BXO		3	1	3
9459	30455	MWIL	05	14	1400	N26	E03	05	14.8	4	(BF)					
9459		LEAR	05	15	0138	N26	W12	05	14.1		B	BXO	10	2	3	3
9459		KAND	05	15	0640	N27	W19	05	13.8			AX		1		3
9459		RAMY	05	18	1340	N27	W55	05	14.3		B	CSO	20	2	3	2
9459		HOLL	05	18	1358	N27	W55	05	14.3		B	BXO	10	2	3	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9459	30462	MWIL	05	18	1400	N27 W55	05 14.3	4	(BP)					
9457		SVTO	05	13	0515	S19 E13	05 14.2		A	AXX		2	1	3
9457		KAND	05	13	0935	S19 E11	05 14.2			AX		2	2	3
9457	30452	MWIL	05	13	1345	S18 E08	05 14.2	4	(AP)					
9457		KAND	05	14	0820	S20 E02	05 14.5			AX		1		3
9457		RAMY	05	14	1210	S21 W01	05 14.4		A	HSX	10	1	1	5
9457	30452	MWIL	05	14	1400	S21 W02	05 14.4	3	(AP)					
9457		HOLL	05	14	1711	S21 W05	05 14.3		A	AXX	10	1	1	2
9454		LEAR	05	10	0332	N13 E79	05 16.1		A	HSX	270	3	5	4
9454		SVTO	05	10	0537	N13 E78	05 16.1		B	DAO	120	2	4	2
9454		KAND	05	10	0605	N14 E80	05 16.3			HA		3	2	3
9454		TACH	05	10	0725	N12 E76	05 16.0			HSX	100	1	2	3
9454		RAMY	05	10	1245	N12 E73	05 16.0		A	HHX	300	1	3	1
9454		HOLL	05	10	1350	N15 E79	05 16.5		B	EAO	300	8	13	4
9454	30450	MWIL	05	10	1430	N13 E77	05 16.4	5	(B)					
9454		VORO	05	10	2117	N12 E74	05 16.5			DAI	634	3	9	2
9454		LEAR	05	11	0230	N14 E68	05 16.2		B	EKO	260	12	12	3
9454		SVTO	05	11	0520	N14 E68	05 16.4		B	EKO	520	8	11	3
9454		KAND	05	11	0645	N14 E69	05 16.5			EAO		6	12	3
9454		RAMY	05	11	1203	N12 E64	05 16.3		B	EAO	440	5	11	2
9454	30450	MWIL	05	11	1430	N13 E63	05 16.3	5	(B)					
9454		HOLL	05	11	1445	N13 E64	05 16.4		BG	EKI	480	20	11	4
9454		VORO	05	11	2115	N13 E60	05 16.4			DKI	710	12	9	2
9454		LEAR	05	12	0220	N14 E57	05 16.4		BG	EAI	290	19	14	2
9454		KAND	05	12	0550	N14 E55	05 16.4			ESO		19	11	4
9454		SVTO	05	12	0840	N13 E53	05 16.4		BG	EAO	490	16	12	3
9454		RAMY	05	12	1340	N12 E51	05 16.4		BG	EAO	370	11	11	3
9454		HOLL	05	12	1503	N12 E51	05 16.5		BG	EKI	500	23	11	1
9454		VORO	05	12	2107	N13 E47	05 16.4			DAI	573	7	10	2
9454	30450	MWIL	05	12	2200	N13 E46	05 16.4	5	(B)					
9454		LEAR	05	13	0145	N13 E44	05 16.4		B	EAO	380	29	12	3
9454		SVTO	05	13	0515	N13 E42	05 16.4		BG	EAI	400	25	13	3
9454		TACH	05	13	0519	N14 E41	05 16.3			DAI	524	8	10	2
9454		KAND	05	13	0935	N14 E40	05 16.4			EAO		9	12	3
9454		RAMY	05	13	1115	N12 E39	05 16.4		BG	EAO	400	10	12	3
9454	30450	MWIL	05	13	1345	N13 E37	05 16.4	5	(B)					
9454		VORO	05	13	2144	N13 E33	05 16.4			DAI	585	7	11	3
9454		LEAR	05	14	0015	N13 E31	05 16.3		BG	EAO	310	20	11	2
9454		SVTO	05	14	0515	N12 E27	05 16.2		BG	EKO	340	16	14	3
9454		TACH	05	14	0541	N13 E26	05 16.2			DAI	595	14	11	3
9454		KAND	05	14	0820	N13 E27	05 16.4			EAO		20	13	3
9454		RAMY	05	14	1210	N11 E25	05 16.4		BG	EAO	310	21	13	5
9454	30450	MWIL	05	14	1400	N12 E24	05 16.4	5	(B)					
9454		HOLL	05	14	1711	N12 E22	05 16.4		BG	EAI	330	29	14	2
9454		VORO	05	14	2114	N13 E21	05 16.5			DAI	538	8	10	2
9454		LEAR	05	15	0138	N12 E17	05 16.3		BG	EAO	250	29	14	3
9454		TACH	05	15	0532	N12 E14	05 16.3			DAI	506	9	10	3
9454		SVTO	05	15	0638	N12 E14	05 16.3		BG	EAO	320	16	14	2
9454		KAND	05	15	0740	N13 E14	05 16.4			EAO		11	13	4
9454		RAMY	05	15	1235	N13 E11	05 16.3		BG	EAI	230	18	13	1
9454	30450	MWIL	05	15	1400	N13 E11	05 16.4	5	(B)					
9454		HOLL	05	15	1740	N11 E07	05 16.3		BG	EKI	300	24	13	3
9454		LEAR	05	16	0005	N12 E04	05 16.3		BG	EAI	230	18	12	3
9454		VORO	05	16	0030	N13 E05	05 16.4			DAI	354	4	10	2
9454		SVTO	05	16	0800	N14 E01	05 16.4		BG	EAO	230	26	14	2
9454		TACH	05	16	0839	N13 W00	05 16.4			DAI	417	9	10	3
9454		KAND	05	16	0925	N13 E00	05 16.4			EAI		22	13	2
9454	30450	MWIL	05	16	1415	N12 W02	05 16.4	5	(B)					
9454		HOLL	05	16	1510	N14 W04	05 16.3		B	EAO	200	23	12	3
9454		RAMY	05	16	1930	N14 W06	05 16.3		BG	ESO	190	7	11	1
9454		VORO	05	16	2324	N13 W08	05 16.4			DAI	331	7	10	2
9454		LEAR	05	17	0015	N14 W09	05 16.3		BG	EAI	150	30	13	4
9454		TACH	05	17	0507	N13 W12	05 16.3			DAI	371	15	9	4
9454		SVTO	05	17	0947	N15 W14	05 16.3		B	EAO	180	17	12	2
9454		KAND	05	17	1045	N14 W15	05 16.3			EAO		17	12	4
9454		HOLL	05	17	1345	N13 W17	05 16.3		BG	EAI	100	25	11	3
9454	30450	MWIL	05	17	1400	N13 W16	05 16.4	5	(BG)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Observation Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9454		VORO	05	18	0304	N13	W23	05	16.4			DRO	121	6	8	2
9454		KAND	05	18	0640	N14	W25	05	16.4			ESO		15	11	3
9454		SVTO	05	18	0840	N14	W26	05	16.4			EA0	100	13	12	2
9454		RAMY	05	18	1340	N14	W28	05	16.4		B	ESO	70	8	11	2
9454		HOLL	05	18	1358	N15	W28	05	16.5		B	ESO	50	9	11	3
9454	30450	MWIL	05	18	1400	N13	W30	05	16.3	4	(B)					
9454		VORO	05	18	2247	N13	W34	05	16.4			CRO	86	4	9	2
9454		SVTO	05	19	0931	N14	W39	05	16.4		B	ESO	40	6	13	2
9454		KAND	05	19	1015	N13	W46	05	15.9			AX		2	1	2
9454		RAMY	05	19	1220	N14	W42	05	16.3		B	DSO	10	4	10	2
9454	30450	MWIL	05	19	1415	N13	W44	05	16.3	4	(B)					
9454		HOLL	05	19	1720	N13	W45	05	16.3		B	CSO	70	6	11	3
9454		HOLL	05	20	1441	N15	W55	05	16.4		A	AXX	30	4	4	3
9454B		TACH	05	11	0651	S13	E73	05	16.8			DAI	105	3	13	3
9454A	30457	MWIL	05	15	1400	N15	E19	05	17.0	4	(AP)					
9454A	30457	MWIL	05	16	1415	N15	E06	05	17.0	4	(AP)					
9454A	30457	MWIL	05	17	1400	N17	W08	05	17.0	4	(AP)					
9454A		KAND	05	18	0640	N17	W17	05	17.0			BXO		5	4	3
9454A	30457	MWIL	05	18	1400	N16	W23	05	16.8	4	(AP)					
9454A		KAND	05	19	1015	N16	W35	05	16.8			AX		2	2	2
9454A	30457	MWIL	05	19	1415	N16	W38	05	16.7	4	(AP)					
9469		LEAR	05	22	0025	N08	W57	05	17.7		B	BXO	20	3	4	3
9469		TACH	05	22	0619	N08	W60	05	17.8			AR	31	2	2	4
9469		KAND	05	22	0950	N08	W63	05	17.7			BXO		4	4	3
9469	30473	MWIL	05	22	1400	N08	W66	05	17.6	4	(B)					
9469		SVTO	05	22	1445	N08	W65	05	17.7		B	DAO	40	3	6	2
9469		HOLL	05	22	1450	N09	W69	05	17.4		B	CSO	80	5	3	4
9469		LEAR	05	23	0622	N07	W76	05	17.6		B	CSO	30	3	5	1
9469		HOLL	05	23	1330	N07	W78	05	17.7		A	HAX	60	2	2	4
9469	30473	MWIL	05	23	1400	N07	W78	05	17.7	4	(AP)					
9460		SVTO	05	14	0515	S23	E69	05	19.5		A	AXX		1		3
9460		KAND	05	14	0820	S22	E70	05	19.7			AX		1		3
9460		RAMY	05	14	1210	S24	E66	05	19.6		A	AXX		1		5
9460	30456	MWIL	05	14	1400	S23	E66	05	19.7	4	(AP)					
9460		HOLL	05	14	1711	S23	E65	05	19.7		A	AXX	10	1	1	2
9460		LEAR	05	15	0138	S24	E59	05	19.6		A	AXX	10	1	1	3
9460		SVTO	05	15	0638	S24	E57	05	19.7		A	AXX		1		2
9460		KAND	05	15	0740	S22	E58	05	19.8			AX		1		4
9460		RAMY	05	15	1235	S24	E53	05	19.6		A	AXX		1		1
9460	30456	MWIL	05	15	1400	S23	E53	05	19.7	3	(AP)					
9460		HOLL	05	15	1740	S24	E51	05	19.7		A	AXX		1	1	3
9460A	30458	MWIL	05	15	1400	N15	E67	05	20.6	4	(AF)					
9470	30469	MWIL	05	21	1415	S17	W02	05	21.4	4	(AP)					
9470		LEAR	05	22	0025	S17	W07	05	21.5		B	BXO	10	3	2	3
9470		TACH	05	22	0619	S17	W11	05	21.4			BRO	38	3	1	4
9470		KAND	05	22	0950	S17	W12	05	21.5			AX		3	2	3
9470	30469	MWIL	05	22	1400	S17	W14	05	21.5	4	(BF)					
9470		SVTO	05	22	1445	S16	W15	05	21.5		A	HSX	10	1	1	2
9470		HOLL	05	22	1450	S12	W14	05	21.6		A	AXX	10	1	1	4
9470		LEAR	05	23	0622	S17	W23	05	21.5		A	AXX	10	1	1	1
9470		RAMY	05	23	1232	S16	W26	05	21.5		A	AXX	10	1	1	3
9470		HOLL	05	23	1330	S16	W27	05	21.5		A	AXX		1		4
9470	30469	MWIL	05	23	1400	S17	W28	05	21.4	4	(AF)					
9461	30459	MWIL	05	15	1400	N18	E83	05	21.9	5	BP					
9461		HOLL	05	15	1740	N15	E79	05	21.7		B	BXO	10	2	4	3
9461		LEAR	05	16	0005	N16	E75	05	21.7		B	DSO	70	4	5	3
9461		SVTO	05	16	0800	N16	E68	05	21.5		B	DAO	90	4	5	2
9461		TACH	05	16	0839	N16	E71	05	21.7			CSO	50	2	3	3
9461		KAND	05	16	0925	N19	E70	05	21.7			DAO		2	2	2
9461	30459	MWIL	05	16	1415	N18	E68	05	21.8	5	(BP)					
9461		HOLL	05	16	1510	N16	E69	05	21.9		B	DAO	120	3	6	3
9461		RAMY	05	16	1930	N21	E63	05	21.6		B	DSO	70	3	7	1

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9461		VORO	05 16 2324	N16	E64	05 21.8			HAX	242	2	1	2
9461		LEAR	05 17 0015	N19	E62	05 21.7		B	DAO	60	9	9	4
9461		TACH	05 17 0507	N18	E59	05 21.7			DSI	128	6	3	4
9461		SVTO	05 17 0947	N17	E56	05 21.7		B	DSO	130	7	8	2
9461		KAND	05 17 1045	N21	E56	05 21.7			DAO		5	2	4
9461		HOLL	05 17 1345	N16	E55	05 21.7		B	DAO	170	7	7	3
9461	30459	MWIL	05 17 1400	N20	E55	05 21.8	5	(BP)					
9461		VORO	05 18 0304	N18	E48	05 21.8			HAX	211	6	4	2
9461		KAND	05 18 0640	N20	E46	05 21.8			DSO		17	8	3
9461		SVTO	05 18 0840	N19	E45	05 21.8		B	DAI	110	15	10	2
9461		RAMY	05 18 1340	N19	E43	05 21.8		B	DSO	80	15	8	2
9461		HOLL	05 18 1358	N18	E45	05 22.0		B	DAO	100	18	8	3
9461	30459	MWIL	05 18 1400	N20	E42	05 21.8	5	(BP)					
9461		VORO	05 18 2247	N17	E37	05 21.8			HAX	427	6	4	2
9461		SVTO	05 19 0931	N19	E32	05 21.8		B	EAI	200	14	11	2
9461		KAND	05 19 1015	N22	E30	05 21.7			DAO		10	7	2
9461		RAMY	05 19 1220	N21	E30	05 21.8		B	DAO	90	12	7	2
9461	30459	MWIL	05 19 1415	N20	E28	05 21.7	5	(BP)					
9461		HOLL	05 19 1720	N17	E28	05 21.8		B	DAO	200	18	8	3
9461		VORO	05 19 2115	N22	E26	05 21.9			CSO	296	5	7	2
9461		TACH	05 20 0548	N20	E20	05 21.8			CSI	171	5	7	3
9461		LEAR	05 20 0745	N21	E17	05 21.6		B	DAO	140	10	8	2
9461		SVTO	05 20 1005	N21	E16	05 21.6		B	EAO	130	11	12	2
9461		RAMY	05 20 1405	N21	E16	05 21.8		B	DSO	80	6	8	1
9461	30459	MWIL	05 20 1415	N21	E15	05 21.7	5	(BP)					
9461		KAND	05 20 1425	N21	E15	05 21.7			DSO		6	8	4
9461		HOLL	05 20 1441	N24	E15	05 21.8		B	DSO	150	15	8	3
9461		TACH	05 21 0624	N20	E06	05 21.7			CSO	340	3	5	3
9461		KAND	05 21 0650	N22	E06	05 21.7			CSO		4	7	3
9461		RAMY	05 21 1247	N19	E01	05 21.6		B	CSO	80	2	5	1
9461	30459	MWIL	05 21 1415	N20	W00	05 21.6	5	(BP)					
9461		HOLL	05 21 1515	N23	W03	05 21.4		B	CSO	70	6	5	2
9461		VORO	05 21 2324	N22	W05	05 21.6			HAX	40	2		1
9461		LEAR	05 22 0025	N20	W07	05 21.5		B	CSO	70	5	5	3
9461		TACH	05 22 0619	N21	W09	05 21.6			HSX	200	1	1	4
9461		KAND	05 22 0950	N21	W11	05 21.6			HA		3	2	3
9461	30459	MWIL	05 22 1400	N21	W13	05 21.6	5	(BP)					
9461		SVTO	05 22 1445	N22	W13	05 21.6		A	HSX	90	1	2	2
9461		HOLL	05 22 1450	N23	W14	05 21.5		B	CSO	80	3	3	4
9461		VORO	05 23 0002	N21	W19	05 21.5			HAX	65	4		2
9461		LEAR	05 23 0622	N22	W22	05 21.6		B	DAO	40	4	2	1
9461		TACH	05 23 0623	N22	W22	05 21.6			HA	150	2	1	2
9461		KAND	05 23 0830	N21	W23	05 21.6			HS		5	2	1
9461		RAMY	05 23 1232	N22	W25	05 21.6		B	DSO	20	3	3	3
9461		SVTO	05 23 1303	N23	W24	05 21.7		B	CSO	40	4	3	2
9461		HOLL	05 23 1330	N21	W27	05 21.5		B	DAO	60	7	3	4
9461	30459	MWIL	05 23 1400	N21	W26	05 21.6	5	(AP)					
9461		LEAR	05 24 0025	N22	W33	05 21.5		B	DAO	50	6	2	2
9461		TACH	05 24 0553	N21	W35	05 21.6			HA	80	2	2	3
9461		KAND	05 24 0640	N21	W34	05 21.7			HA		5	3	3
9461		SVTO	05 24 0750	N21	W36	05 21.6		B	CSO	30	4	3	2
9461		RAMY	05 24 1115	N21	W39	05 21.5		B	DSO	40	2	2	2
9461		HOLL	05 24 1315	N22	W40	05 21.5		A	HAX	40	2	2	2
9461	30459	MWIL	05 24 1430	N21	W40	05 21.5	5	(AP)					
9461		LEAR	05 25 0120	N22	W47	05 21.4		A	HAX	30	2	2	3
9461		TACH	05 25 0658	N21	W50	05 21.4			HSX	50	1	1	4
9461		KAND	05 25 0950	N21	W50	05 21.6			HA		1	2	5
9461		RAMY	05 25 1205	N21	W51	05 21.6		A	HSX	20	1	1	3
9461		SVTO	05 25 1303	N23	W54	05 21.4		B	CSO	40	4	3	2
9461		HOLL	05 25 1312	N23	W53	05 21.5		A	HAX	30	1	1	3
9461	30459	MWIL	05 25 1430	N22	W53	05 21.5	4	(AP)					
9461		LEAR	05 26 0029	N21	W58	05 21.6		A	HSX	20	1	1	1
9461		TA6H	05 26 0640	N21	W62	05 21.5			HSX	45	1	2	4
9461		SVTO	05 26 0853	N22	W65	05 21.4		A	HSX	20	1	1	2
9461		RAMY	05 26 1301	N22	W65	05 21.5		A	HSX	40	1	2	2
9461		HOLL	05 26 1329	N23	W66	05 21.5		A	HAX	40	1	1	3
9461		KAND	05 26 1330	N21	W64	05 21.6			HS		1	1	3
9461	30459	MWIL	05 26 1430	N21	W66	05 21.5	4	(AP)					
9461		VORO	05 26 2327	N20	W71	05 21.5			HAX	48	1		3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9461		LEAR	05	27	0027	N22	W71	05	21.6		A	HAX	30	1	1	2
9461		SVTO	05	27	0515	N22	W74	05	21.5		A	HAX	30	1	1	3
9461		TACH	05	27	0547	N19	W74	05	21.6			AXX	1	1	1	2
9461		KAND	05	27	0800	N20	W75	05	21.6			AX		1	1	3
9461		RAMY	05	27	1220	N22	W78	05	21.5		A	HSX	30	1	1	3
9461	30459	MWIL	05	27	1400	N21	W79	05	21.5	4		AP				
9461A	30460	MWIL	05	15	1400	N15	E83	05	21.9	4		AP				
9461A		KAND	05	16	0925	N16	E74	05	22.0			HA		1	2	2
9461A	30460	MWIL	05	16	1415	N15	E69	05	21.8	4		(AP)				
9461A		KAND	05	17	1045	N16	E58	05	21.8			HS		1	1	4
9461A	30460	MWIL	05	17	1400	N15	E56	05	21.8	5		(AP)				
9461A		KAND	05	18	0640	N16	E47	05	21.8			HS		2	1	3
9461A	30460	MWIL	05	18	1400	N15	E43	05	21.8	4		(AP)				
9461A		KAND	05	19	1015	N16	E32	05	21.8			AX		1	1	2
9461A	30460	MWIL	05	19	1415	N15	E30	05	21.9	4		(AP)				
9461A	30460	MWIL	05	20	1415	N13	E19	05	22.0	3		(B)				
9461A	30474	MWIL	05	22	1400	N11	W13	05	21.6	4		(AF)				
9476		HOLL	05	26	1329	S22	W48	05	22.9		A	AXX	10	2	3	3
9476		KAND	05	26	1330	S22	W48	05	22.9			BXO		2	3	3
9476	30481	MWIL	05	26	1430	S22	W49	05	22.8	4		(B)				
9476		LEAR	05	27	0027	S22	W56	05	22.7		B	BXO	20	3	3	2
9476		SVTO	05	27	0515	S22	W58	05	22.8		A	HRX	10	1	1	3
9476		KAND	05	27	0800	S22	W61	05	22.6			AX		1	1	3
9476		RAMY	05	27	1220	S21	W63	05	22.7		A	HSX	20	1	1	3
9476	30481	MWIL	05	27	1400	S22	W65	05	22.6	P		(A				
9476		LEAR	05	28	0025	S23	W70	05	22.6		A	AXX	20	1	1	2
9462		SVTO	05	17	0947	N19	E78	05	23.4		A	HAX	60	1	3	2
9462		KAND	05	17	1045	N20	E82	05	23.7			HA		1	2	4
9462		HOLL	05	17	1345	N18	E79	05	23.6		A	HAX	20	1	2	3
9462	30461	MWIL	05	17	1400	N20	E78	05	23.5	5		AP				
9462		VORO	05	18	0304	N19	E72	05	23.6			HAX	110	1		2
9462		KAND	05	18	0640	N20	E69	05	23.5			HS		2	3	3
9462		SVTO	05	18	0840	N20	E68	05	23.6		A	HSX	50	1	2	2
9462		RAMY	05	18	1340	N20	E67	05	23.7		B	DSO	80	2	2	2
9462		HOLL	05	18	1358	N19	E68	05	23.8		A	HAX	40	1	2	3
9462	30461	MWIL	05	18	1400	N20	E66	05	23.6	5		(AP)				
9462		VORO	05	18	2247	N19	E62	05	23.7			HAX	175	1		2
9462		SVTO	05	19	0931	N19	E54	05	23.5		A	HSX	70	1	2	2
9462		KAND	05	19	1015	N20	E56	05	23.7			HS		1	2	2
9462		RAMY	05	19	1220	N20	E53	05	23.6		A	HSX	40	1	2	2
9462	30461	MWIL	05	19	1415	N20	E53	05	23.6	5		(AP)				
9462		HOLL	05	19	1720	N18	E51	05	23.6		A	HSX	40	1	2	3
9462		VORO	05	19	2115	N20	E49	05	23.6			HAX	151	1		2
9462		TACH	05	20	0548	N19	E44	05	23.6			HSX	100	1	1	3
9462		LEAR	05	20	0745	N20	E43	05	23.6		A	HSX	80	1	2	2
9462		SVTO	05	20	1005	N19	E43	05	23.7		A	HAX	50	1	2	2
9462		RAMY	05	20	1405	N20	E40	05	23.6		A	HAX	60	1	1	1
9462	30461	MWIL	05	20	1415	N20	E40	05	23.6	5		(AP)				
9462		KAND	05	20	1425	N19	E40	05	23.6			HS		1	2	4
9462		HOLL	05	20	1441	N22	E41	05	23.8		A	HAX	60	1	1	3
9462		TACH	05	21	0624	N19	E31	05	23.6			HSX	150	1	1	3
9462		KAND	05	21	0650	N19	E31	05	23.6			HS		1	2	3
9462		RAMY	05	21	1247	N19	E27	05	23.6		A	HSX	50	1	1	1
9462	30461	MWIL	05	21	1415	N22	E28	05	23.7	5		(BP)				
9462	30471	MWIL	05	21	1415	N24	E28	05	23.7	4		(AF)				
9462		HOLL	05	21	1515	N23	E28	05	23.8		A	HSX	70	1	2	2
9462		VORO	05	21	2324	N20	E22	05	23.6			HAX	44	1		1
9462		LEAR	05	22	0025	N21	E22	05	23.7		B	CSO	70	3	2	3
9462		TACH	05	22	0619	N19	E19	05	23.7			HSX	110	1	1	4
9462		KAND	05	22	0950	N20	E17	05	23.7			HA		2	2	3
9462	30461	MWIL	05	22	1400	N19	E15	05	23.7	5		(BF)				
9462	30471	MWIL	05	22	1400	N25	E15	05	23.7	3		(AF)				
9462		SVTO	05	22	1445	N18	E15	05	23.7		B	DSO	70	3	4	2
9462		HOLL	05	22	1450	N22	E13	05	23.6		A	HSX	100	1	3	4
9462		VORO	05	23	0002	N19	E09	05	23.7			HAX	45	1		2
9462		LEAR	05	23	0622	N18	E05	05	23.6		B	CSO	60	3	3	1

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9462		TACH	05	23	0623	N20	E05	05	23.6			HSX	100	1	1	2
9462		KAND	05	23	0830	N20	E05	05	23.7			CSO		4	2	1
9462		RAMY	05	23	1232	N19	E04	05	23.8		A	HSX	60	1	1	3
9462		SVTO	05	23	1303	N18	E04	05	23.8		B	CSO	80	3	4	2
9462		HOLL	05	23	1330	N18	E02	05	23.7		B	CSO	110	3	3	4
9462	30461	MWIL	05	23	1400	N19	E01	05	23.6	5	(BP)					
9462	30471	MWIL	05	23	1400	N24	E02	05	23.7	3	(AF)					
9462		LEAR	05	24	0025	N18	W06	05	23.6		B	CSO	80	2	4	2
9462		TACH	05	24	0553	N20	W08	05	23.6			HSX	150	1	1	3
9462		KAND	05	24	0640	N19	W06	05	23.8			HS		1	2	3
9462		SVTO	05	24	0750	N19	W07	05	23.8		A	HSX	80	1	3	2
9462		RAMY	05	24	1115	N19	W09	05	23.8		A	HSX	40	1	1	2
9462		HOLL	05	24	1315	N18	W11	05	23.7		A	HSX	80	1	2	2
9462	30461	MWIL	05	24	1430	N19	W12	05	23.7	5	(BF)					
9462		LEAR	05	25	0120	N20	W17	05	23.7		A	HSX	40	1	2	3
9462		TACH	05	25	0658	N20	W22	05	23.6			HSX	200	1	1	4
9462		KAND	05	25	0950	N20	W21	05	23.8			HS		1	1	5
9462		RAMY	05	25	1205	N20	W22	05	23.8		A	HSX	40	1	1	3
9462		HOLL	05	25	1312	N21	W23	05	23.8		A	HSX	90	1	2	3
9462	30461	MWIL	05	25	1430	N20	W24	05	23.8	5	(AP)					
9462		LEAR	05	26	0029	N20	W30	05	23.7		A	HSX	50	1	1	1
9462		TACH	05	26	0640	N20	W32	05	23.8			HSX	1175	1	1	4
9462		SVTO	05	26	0853	N21	W35	05	23.7		A	HSX	70	1	3	2
9462		RAMY	05	26	1301	N21	W36	05	23.8		A	HSX	50	1	2	2
9462		HOLL	05	26	1329	N21	W37	05	23.7		A	HAX	80	1	2	3
9462		KAND	05	26	1330	N20	W36	05	23.8			HS		1	2	3
9462	30461	MWIL	05	26	1430	N20	W37	05	23.8	5	(AP)					
9462		VORO	05	26	2327	N19	W42	05	23.8			HAX	62	1		3
9462		LEAR	05	27	0027	N20	W42	05	23.8		A	HSX	60	1	2	2
9462		SVTO	05	27	0515	N20	W45	05	23.8		A	HSX	60	1	2	3
9462		TACH	05	27	0547	N19	W45	05	23.8			HSX	70	1	2	2
9462		KAND	05	27	0800	N20	W45	05	23.9			HS		1	2	3
9462		RAMY	05	27	1220	N21	W49	05	23.7		A	HSX	60	1	2	3
9462	30461	MWIL	05	27	1400	N20	W50	05	23.7	5	(AP)					
9462		HOLL	05	27	1720	N22	W51	05	23.8		A	HSX	60	1	2	2
9462		VORO	05	27	2116	N20	W54	05	23.7			HSX	105	1		2
9462		LEAR	05	28	0025	N20	W56	05	23.7		A	HSX	50	1	2	2
9462		SVTO	05	28	0503	N19	W57	05	23.9		A	HSX	40	1	1	3
9462		KAND	05	28	0640	N19	W58	05	23.8			HS		1	2	3
9462		RAMY	05	28	1233	N21	W60	05	23.9		A	HSX	60	1	2	3
9462	30461	MWIL	05	28	1430	N20	W62	05	23.9	5	(AP)					
9462		HOLL	05	28	1500	N22	W63	05	23.8		A	HAX	80	1	2	3
9462		VORO	05	28	2303	N19	W67	05	23.8			HAX	72	1		2
9462		LEAR	05	29	0225	N20	W69	05	23.8		A	HSX	50	1	2	2
9462		SVTO	05	29	0507	N19	W71	05	23.8		A	HSX	60	1	3	2
9462		TACH	05	29	0558	N18	W73	05	23.7			HSX	100	1	2	3
9462		KAND	05	29	0810	N21	W72	05	23.8			HS		1	2	3
9462		RAMY	05	29	1250	N22	W74	05	23.8		A	HSX	60	1	2	3
9462		HOLL	05	29	1310	N22	W75	05	23.8		A	HAX	60	1	2	2
9462		HOLL	05	29	1310	N27	W71	05	24.0		A	AXX		1	1	2
9462	30461	MWIL	05	29	1415	N20	W75	05	23.8	4	(AP)					
9471	30470	MWIL	05	21	1415	S12	E28	05	23.7	4	(BF)					
9471	30470	MWIL	05	22	1400	S10	E15	05	23.7	3	(B)					
9471		LEAR	05	23	0622	S12	E07	05	23.8		A	AXX	10	1	1	1
9471		SVTO	05	23	1303	S13	E02	05	23.7		A	HRX	10	1	1	2
9471		HOLL	05	23	1330	S13	E03	05	23.8		A	AXX		1		4
9471	30470	MWIL	05	23	1400	S13	E02	05	23.7	4	(AF)					
9471		LEAR	05	24	0025	S12	W04	05	23.7		B	BXO	10	2	1	2
9471		KAND	05	24	0640	S13	W06	05	23.8			BXO		2	1	3
9471		SVTO	05	24	0750	S14	W08	05	23.7		A	AXX	10	2	2	2
9471A		KAND	05	18	0640	S33	E76	05	24.3			AX		1		3
9471A		HOLL	05	18	1358	S34	E72	05	24.3		A	AXX		1		3
9471A	30463	MWIL	05	18	1400	S33	E69	05	24.1	4	(AF)					
9471A		SVTO	05	19	0931	S33	E59	05	24.1		A	HRX	10	1	1	2
9471A	30463	MWIL	05	19	1415	S33	E56	05	24.0	4	(AF)					
9471A		HOLL	05	19	1720	S34	E57	05	24.3		A	AXX	20	1	1	3
9471A	30463	MWIL	05	20	1415	S33	E44	05	24.1	4	(AF)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9471A		HOLL	05	20	1441	S31	E41	05	23.8		A	AXX	10	1	1	3
9463		KAND	05	18	0640	N07	E80	05	24.3			HS		3	2	3
9463		SVTO	05	18	0840	N07	E76	05	24.0		A	HSX	60	1	2	2
9463		RAMY	05	18	1340	N08	E78	05	24.4		B	DSO	40	2	4	2
9463		HOLL	05	18	1358	N07	E79	05	24.5		B	DAO	50	2	5	3
9463	30464	MWIL	05	18	1400	N06	E76	05	24.3	5	(BP)					
9463		VORO	05	18	2247	N07	E71	05	24.3			HKX	474	2		2
9463		SVTO	05	19	0931	N07	E66	05	24.3		B	DAO	200	3	8	2
9463		KAND	05	19	1015	N08	E67	05	24.4			CAO		6	7	2
9463		RAMY	05	19	1220	N08	E64	05	24.3		B	DAO	260	4	9	2
9463	30464	MWIL	05	19	1415	N07	E64	05	24.4	5	(BP)					
9463		HOLL	05	19	1720	N06	E62	05	24.4		B	DAO	220	10	10	3
9463		VORO	05	19	2115	N07	E61	05	24.4			DKI	691	4	8	2
9463		TACH	05	20	0548	N07	E56	05	24.4			DAI	370	8	9	3
9463		LEAR	05	20	0745	N08	E55	05	24.4		B	DAO	490	13	8	2
9463		SVTO	05	20	1005	N08	E53	05	24.4		B	EAO	360	14	11	2
9463		RAMY	05	20	1405	N09	E51	05	24.4		B	EAO	350	1	11	1
9463	30464	MWIL	05	20	1415	N08	E50	05	24.3	5	(BG)					
9463		KAND	05	20	1425	N08	E50	05	24.3			EKI		14	13	4
9463		HOLL	05	20	1441	N10	E51	05	24.4		B	EKI	370	18	11	3
9463		TACH	05	21	0624	N07	E40	05	24.3			DAI	586	7	11	3
9463		KAND	05	21	0650	N08	E41	05	24.3			EAI		22	13	3
9463		RAMY	05	21	1247	N13	E36	05	24.2		B	EKI	430	13	12	1
9463	30464	MWIL	05	21	1415	N08	E35	05	24.2	5	(BG)					
9463		HOLL	05	21	1515	N12	E35	05	24.3		BG	EKI	530	26	12	2
9463		VORO	05	21	2324	N07	E31	05	24.3			DSO	244	5	11	1
9463		LEAR	05	22	0025	N09	E31	05	24.3		BG	EKI	360	33	13	3
9463		TACH	05	22	0619	N08	E27	05	24.3			DAI	860	14	11	4
9463		KAND	05	22	0950	N08	E25	05	24.3			EKI		42	14	3
9463	30464	MWIL	05	22	1400	N07	E22	05	24.2	5	(BG)					
9463		SVTO	05	22	1445	N06	E23	05	24.3		B	EKI	550	24	15	2
9463		HOLL	05	22	1450	N12	E22	05	24.3		BG	EHI	320	31	13	4
9463		VORO	05	23	0002	N07	E17	05	24.3			DKI	343	19	11	2
9463		LEAR	05	23	0622	N08	E12	05	24.2		B	EHI	420	25	14	1
9463		TACH	05	23	0623	N07	E13	05	24.2			EAI	1031	8	13	2
9463		KAND	05	23	0830	N06	E12	05	24.2			EKI		18	15	1
9463		RAMY	05	23	1232	N07	E10	05	24.3		B	EHI	740	13	14	3
9463		SVTO	05	23	1303	N06	E10	05	24.3		B	FKI	700	21	16	2
9463		HOLL	05	23	1330	N07	E09	05	24.2		B	EKI	780	56	15	4
9463	30464	MWIL	05	23	1400	N08	E08	05	24.2	6	(BG)					
9463		LEAR	05	24	0025	N06	E04	05	24.3		B	EKI	630	32	14	2
9463		TACH	05	24	0553	N08	W02	05	24.1			DAI	1322	17	8	3
9463		KAND	05	24	0640	N08	E00	05	24.3			FKO		26	16	3
9463		SVTO	05	24	0750	N07	W02	05	24.2		B	FKI	670	18	16	2
9463		RAMY	05	24	1115	N08	W03	05	24.2		B	FKI	680	21	16	2
9463	30464	HOLL	05	24	1315	N07	W04	05	24.2		B	FKI	700	28	16	2
9463		MWIL	05	24	1430	N07	W06	05	24.1	6	(D)					
9463		LEAR	05	25	0120	N08	W11	05	24.2		B	EKI	440	26	15	3
9463		TACH	05	25	0658	N08	W16	05	24.1			DAI	919	11	10	4
9463		KAND	05	25	0950	N08	W16	05	24.2			FKO		23	16	5
9463		RAMY	05	25	1205	N09	W17	05	24.2		B	EKO	470	17	15	3
9463		HOLL	05	25	1312	N08	W18	05	24.2		BG	EKI	540	36	13	3
9463	30464	MWIL	05	25	1430	N08	W19	05	24.2	6	(BG)					
9463		LEAR	05	26	0029	N08	W25	05	24.1		BG	EKO	430	17	12	1
9463		TACH	05	26	0640	N08	W28	05	24.2			DAO	120	6	9	4
9463		SVTO	05	26	0853	N08	W29	05	24.2		B	EKO	560	15	14	2
9463		RAMY	05	26	1301	N09	W32	05	24.1		B	EKO	360	4	12	2
9463		HOLL	05	26	1329	N08	W33	05	24.1		BG	EKI	650	34	13	3
9463		KAND	05	26	1330	N08	W32	05	24.2			EKO		18	14	3
9463	30464	MWIL	05	26	1430	N08	W33	05	24.1	6	(BG)					
9463		VORO	05	26	2327	N08	W38	05	24.1			DKI	394	6	11	3
9463		LEAR	05	27	0027	N08	W37	05	24.2		BG	EKI	460	19	13	2
9463		SVTO	05	27	0515	N08	W38	05	24.4		BG	FKI	560	21	18	3
9463		TACH	05	27	0547	N08	W41	05	24.2			DSO	561	4	11	2
9463		KAND	05	27	0800	N08	W41	05	24.2			EKO		5	13	3
9463		RAMY	05	27	1220	N09	W44	05	24.2		BG	EKO	400	9	14	3
9463	30464	MWIL	05	27	1400	N08	W47	05	24.0	6	(B)					
9463		HOLL	05	27	1720	N09	W48	05	24.1		BG	EKI	540	3	14	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9463		VORO	05	27	2116	N09 W50	05 24.1			DKO	517	3	11	2
9463		LEAR	05	28	0025	N07 W51	05 24.2		BG	EKI	360	18	13	2
9463		SVTO	05	28	0503	N08 W54	05 24.2		B	EHO	430	7	14	3
9463		KAND	05	28	0640	N07 W56	05 24.1			CKO		4	13	3
9463		RAMY	05	28	1233	N09 W57	05 24.2		BG	EHO	430	4	14	3
9463	30464	MWIL	05	28	1430	N08 W61	05 24.0	5	(BP)					
9463		HOLL	05	28	1500	N09 W61	05 24.0		B	EKO	440	12	13	3
9463		VORO	05	28	2303	N07 W70	05 23.7			HKX	521	1		2
9463		LEAR	05	29	0225	N07 W66	05 24.1		B	CKO	300	5	14	2
9463		SVTO	05	29	0507	N06 W72	05 23.8		A	HKX	240	1	5	2
9463		TACH	05	29	0558	N06 W68	05 24.1			CSO	355	2	12	3
9463		KAND	05	29	0810	N08 W75	05 23.7			HS		1	3	3
9463		RAMY	05	29	1250	N08 W76	05 23.8		A	HHX	330	1	3	3
9463		HOLL	05	29	1310	N09 W78	05 23.7		A	HKX	300	1	4	2
9463	30464	MWIL	05	29	1415	N07 W78	05 23.7	5	(AP)					
9479	30478	MWIL	05	24	1430	N28 W02	05 24.4	3	(AF)					
9479	30478	MWIL	05	25	1430	N28 W16	05 24.3	4	(AF)					
9479	30478	MWIL	05	26	1430	N29 W31	05 24.2	3	(AF)					
9479	30478	MWIL	05	27	1400	N26 W36	05 24.8	4	(AP)					
9479		SVTO	05	28	0503	N25 W43	05 24.9		A	AXX	10	2	2	3
9479		KAND	05	28	0640	N24 W44	05 24.9			BXO		2	1	3
9479		RAMY	05	28	1233	N26 W47	05 24.9		B	DSO	30	2	3	3
9479	30478	MWIL	05	28	1430	N25 W49	05 24.8	4	(B)					
9479		HOLL	05	28	1500	N26 W48	05 24.9		B	CSO	50	4	3	3
9479		VORO	05	28	2303	N25 W51	05 25.0			HAX	38	2		2
9479		LEAR	05	29	0225	N25 W57	05 24.7		B	BXO	10	3	1	2
9479		SVTO	05	29	0507	N25 W57	05 24.8		A	AXX		1		2
9479		KAND	05	29	0810	N26 W58	05 24.8			AX		1	1	3
9479	30478	MWIL	05	29	1415	N25 W62	05 24.8	4	(B)					
9466	30465	MWIL	05	18	1400	S09 E84	05 24.9	4	AP					
9466		RAMY	05	19	1220	S08 E70	05 24.8		A	HSX	50	1	2	2
9466	30465	MWIL	05	19	1415	S09 E69	05 24.8	4	(AP)					
9466	30465	MWIL	05	20	1415	S09 E56	05 24.8	4	(AP)					
9466		KAND	05	20	1425	S04 E59	05 25.0			CSO		2	3	4
9466		KAND	05	21	0650	S04 E50	05 25.0			HS		2	2	3
9466	30465	MWIL	05	21	1415	S09 E42	05 24.7	4	(AP)					
9466		HOLL	05	21	1515	S02 E44	05 24.9		A	HSX	30	2	2	2
9466		LEAR	05	22	0025	S04 E39	05 24.9		A	AXX	10	3	1	3
9466		KAND	05	22	0950	S05 E35	05 25.0			BXO		4	4	3
9466	30465	MWIL	05	22	1400	S09 E29	05 24.7	4	(AP)					
9466		HOLL	05	22	1450	S01 E31	05 24.9		A	AXX	10	3	1	4
9466		LEAR	05	23	0622	S04 E23	05 25.0		B	BSO	10	2	1	1
9466		HOLL	05	23	1330	S04 E19	05 25.0		A	AXX	20	7	2	4
9466	30465	MWIL	05	23	1400	S10 E16	05 24.8	5	(AP)					
9466		LEAR	05	24	0025	S06 E10	05 24.8		B	DAO	50	9	5	2
9466		KAND	05	24	0640	S04 E11	05 25.1			CAI		9	4	3
9466		SVTO	05	24	0750	S05 E09	05 25.0		B	DAO	50	4	4	2
9466		HOLL	05	24	1315	S05 E06	05 25.0		B	CAO	70	7	3	2
9466	30465	MWIL	05	24	1430	S10 E02	05 24.7	3	(AP)					
9466		KAND	05	25	0950	S03 W04	05 25.1			CSO		3	3	5
9466		RAMY	05	25	1205	S06 W07	05 25.0		B	CSO	20	5	3	3
9466		HOLL	05	25	1312	S04 W07	05 25.0		B	CSO	30	7	3	3
9466		LEAR	05	26	0029	S05 W13	05 25.0		B	CRO	10	2	3	1
9466		SVTO	05	26	0853	S05 W17	05 25.1		B	BXO	20	5	4	2
9466		HOLL	05	26	1329	S04 W19	05 25.1		B	BXO	10	4	5	3
9466		KAND	05	26	1330	S05 W19	05 25.1			BXO		6	5	3
9464		TACH	04	22	0619	S06 E34	04 24.8			DSO	95	2	3	4
9464		SVTO	05	19	0931	S11 E76	05 25.1		B	CRO	60	2	8	2
9464		KAND	05	19	1015	S08 E71	05 24.7			HR		1	1	2
9464		RAMY	05	19	1220	S10 E70	05 24.8		A	AXX	10	1	1	2
9464		HOLL	05	19	1720	S11 E72	05 25.1		B	CAO	110	3	11	3
9464		TACH	05	20	0548	S09 E60	05 24.7			AXX	10	1	1	3
9464		LEAR	05	20	0745	S08 E63	05 25.0		B	DAO	30	6	8	2
9464		SVTO	05	20	1005	S07 E58	05 24.8		B	DAO	50	4	6	2
9464		RAMY	05	20	1405	S07 E57	05 24.8		B	DSO	40	4	6	1
9464	30467	MWIL	05	20	1415	S04 E58	05 24.9	4	(BP)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9464		KAND	05	20	1425	S09	E56	05	24.8			HS		1	2	4
9464		HOLL	05	20	1441	S05	E58	05	25.0		B	DSO	60	3	5	3
9464		TACH	05	21	0624	S07	E48	05	24.9			CSO	105	2	4	3
9464		KAND	05	21	0650	S09	E47	05	24.8			HR		1	1	3
9464		RAMY	05	21	1247	S07	E44	05	24.8		B	DSO	40	2	6	1
9464	30467	MWIL	05	21	1415	S04	E46	05	25.0	4	(BP)					
9464		HOLL	05	21	1515	S07	E41	05	24.7		A	AXX	10	1	1	2
9464		VORO	05	21	2324	S09	E36	05	24.7			AXX	29	1		1
9464		LEAR	05	22	0025	S09	E36	05	24.7		A	HSX	10	1	1	3
9464		KAND	05	22	0950	S09	E32	05	24.8			HA		2	1	3
9464	30467	MWIL	05	22	1400	S05	E33	05	25.0	4	(BP)					
9464		SVTO	05	22	1445	S09	E28	05	24.7		A	HSX	10	1	1	2
9464		HOLL	05	22	1450	S06	E28	05	24.7		A	AXX	10	1	1	4
9464		VORO	05	23	0002	S09	E23	05	24.7			AXX	24	1		2
9464		LEAR	05	23	0622	S09	E20	05	24.8		A	HSX	10	1	1	1
9464		TACH	05	23	0623	S07	E23	05	25.0			BXI	27	3	8	2
9464		RAMY	05	23	1232	S07	E19	05	24.9		B	BXO	20	3	5	3
9464		SVTO	05	23	1303	S11	E16	05	24.7		A	HSX	10	1	1	2
9464		HOLL	05	23	1330	S09	E16	05	24.8		A	AXX	10	3	1	4
9464	30467	MWIL	05	23	1400	S05	E21	05	25.1	5	(BP)					
9464		LEAR	05	24	0025	S10	E10	05	24.8		B	BXO	10	2	1	2
9464		TACH	05	24	0553	S05	E07	05	24.8			CAO	100	3	3	3
9464		KAND	05	24	0640	S09	E07	05	24.8			AX		2	2	3
9464		SVTO	05	24	0750	S10	E06	05	24.8		A	HRX	10	1	1	2
9464		RAMY	05	24	1115	S07	E06	05	24.9		B	CAO	50	6	7	2
9464		HOLL	05	24	1315	S09	E03	05	24.8		A	AXX		1		2
9464	30467	MWIL	05	24	1430	S05	E06	05	25.0	4	(BP)					
9464		LEAR	05	25	0120	S03	E01	05	25.1		B	CRO	10	3	3	3
9464		TACH	05	25	0658	S03	W05	05	24.9			AR	35	2	2	4
9464		RAMY	05	25	1205	S06	W07	05	25.0		B	CSO	20	5	3	3
9464	30467	MWIL	05	25	1430	S04	W08	05	25.0	4	(B)					
9464		TACH	05	26	0640	S04	W16	05	25.1			BRO	8	3	2	4
9464		RAMY	05	26	1301	S04	W20	05	25.0		B	BXO	36	3	12	2
9464	30467	MWIL	05	26	1430	S04	W21	05	25.0	4	(BG)					
9464	30467	MWIL	05	27	1400	S03	W36	05	24.9	3	(AP)					
9464		TACH	05	29	0558	S04	W59	05	24.8			AXX	10	1	1	3
9465	30466	MWIL	05	19	1415	S11	E81	05	25.7	4	(AP)					
9465		LEAR	05	20	0745	S15	E68	05	25.5		B	DAO	50	3	9	2
9465		SVTO	05	20	1005	S09	E71	05	25.7		B	EAO	30	4	12	2
9465		RAMY	05	20	1405	S09	E70	05	25.8		B	ESO	80	4	12	1
9465	30466	MWIL	05	20	1415	S11	E66	05	25.5	4	(BP)					
9465		KAND	05	20	1425	S11	E67	05	25.6			HS		3	3	4
9465		HOLL	05	20	1441	S08	E69	05	25.8		B	DAO	50	4	10	3
9465		KAND	05	21	0650	S11	E57	05	25.6			AX		4	3	3
9465		RAMY	05	21	1247	S10	E57	05	25.8		B	DSO	150	3	10	1
9465	30466	MWIL	05	21	1415	S11	E55	05	25.7	4	(BP)					
9465		HOLL	05	21	1515	S08	E51	05	25.4		A	HSX	50	5	3	2
9465		LEAR	05	22	0025	S12	E46	05	25.5		B	CSO	40	6	5	3
9465		KAND	05	22	0950	S11	E42	05	25.6			BXO		8	3	3
9465	30466	MWIL	05	22	1400	S11	E41	05	25.7	4	(BP)					
9465		SVTO	05	22	1445	S08	E37	05	25.4		B	CSO	40	6	11	2
9465		HOLL	05	22	1450	S09	E39	05	25.5		B	CSO	30	5	3	4
9465		LEAR	05	23	0622	S10	E28	05	25.4		B	BSO	10	3	2	1
9465		RAMY	05	23	1232	S08	E25	05	25.4		A	HSX	50	1	2	3
9465		SVTO	05	23	1303	S06	E20	05	25.0		B	CRO	10	3	3	2
9465		HOLL	05	23	1330	S10	E24	05	25.4		B	BXO	10	6	3	4
9465	30477	MWIL	05	23	1400	S07	E24	05	25.4	4	(AP)					
9465	30466	MWIL	05	23	1400	S11	E27	05	25.6	4	(B)					
9465		LEAR	05	24	0025	S11	E20	05	25.5		B	BXO	10	4	3	2
9465		KAND	05	24	0640	S11	E18	05	25.6			AX		5	2	3
9465		SVTO	05	24	0750	S12	E16	05	25.5		A	AXX	10	2	2	2
9465		RAMY	05	24	1115	S08	E21	05	26.0		A	HSX	60	1	2	2
9465		HOLL	05	24	1315	S13	E15	05	25.7		B	BXO	10	8	6	2
9465	30466	MWIL	05	24	1430	S13	E14	05	25.7	3	(AF)					
9465		LEAR	05	25	0120	S16	E13	05	26.0		B	BXO	10	5	2	3
9465		KAND	05	25	0950	S10	E06	05	25.9			AX		3	1	5
9465		RAMY	05	25	1205	S10	E04	05	25.8		B	BXO	10	6	3	3
9465		HOLL	05	25	1312	S12	E03	05	25.8		B	BXO	20	11	4	3

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(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9465	30466	MWIL	05	25	1430	S10	E01	05	25.7	4	(B)					
9465		LEAR	05	26	0029	S10	W05	05	25.6		B	CRO	10	3	3	1
9465		SVTO	05	26	0853	S10	W10	05	25.6		B	CRO	20	6	6	2
9465		RAMY	05	26	1301	S11	W13	05	25.6		B	CSO	30	2	5	2
9465		HOLL	05	26	1329	S10	W13	05	25.6		B	BXO	10	7	6	3
9465		KAND	05	26	1330	S10	W11	05	25.7			BXO		12	6	3
9465	30466	MWIL	05	26	1430	S11	W13	05	25.6	4	(B)					
9465		LEAR	05	27	0027	S11	W18	05	25.7		B	BXO	20	6	6	2
9465		SVTO	05	27	0515	S10	W23	05	25.5		B	BXO	20	7	9	3
9465		KAND	05	27	0800	S10	W23	05	25.6			BXO		4	6	3
9465		RAMY	05	27	1220	S11	W28	05	25.4		A	AXX		1		3
9465	30466	MWIL	05	27	1400	S11	W28	05	25.5	4	(B)					
9465		SVTO	05	28	0503	S09	W37	05	25.4		A	HRX	10	1	1	3
9465	30466	MWIL	05	28	1430	S10	W38	05	25.7	4	(AF)					
9481		RAMY	05	27	1220	N18	W22	05	25.8		B	BXO	10	2	4	3
9481	30485	MWIL	05	27	1400	N17	W24	05	25.7	4	(B)					
9481		LEAR	05	28	0025	N17	W31	05	25.7		B	BXO	20	3	5	2
9481		SVTO	05	28	0503	N17	W34	05	25.6		A	AXX	10	2	2	3
9481	30485	MWIL	05	28	1430	N18	W40	05	25.5	3	(AP)					
9481	30485	MWIL	05	30	1400	N17	W64	05	25.7	4	(AP)					
9481		HOLL	05	30	1400	N18	W67	05	25.5		A	AXX		1	1	3
9481		LEAR	05	31	0030	N17	W71	05	25.6		B	CSO	30	3	9	3
9481		VORO	05	31	0058	N17	W72	05	25.6			CAO	47	3	6	2
9481		SVTO	05	31	0515	N17	W75	05	25.5		B	DSO	80	4	9	3
9481		KAND	05	31	0815	N17	W73	05	25.8			HS		2	1	3
9481		TACH	05	31	0845	N17	W75	05	25.7			HSX	50	1	2	3
9481	30485	MWIL	05	31	1400	N18	W78	05	25.6	4	(AP)					
9481		HOLL	05	31	1448	N20	W78	05	25.6		B	HAX	60	2	2	3
9481		LEAR	06	01	0015	N18	W85	05	25.6		B	DAO	60	3	3	4
9467		TACH	05	20	0548	S09	E76	05	25.9			BRO	21	3	9	3
9467	30468	MWIL	05	20	1415	S07	E74	05	26.1	5	(AP)					
9467		KAND	05	20	1425	S07	E74	05	26.1			HS		1	2	4
9467		TACH	05	21	0624	S10	E62	05	25.9			DSO	120	2	9	3
9467		KAND	05	21	0650	S06	E65	05	26.1			HA		1	2	3
9467	30468	MWIL	05	21	1415	S07	E60	05	26.1	5	(AP)					
9467		HOLL	05	21	1515	S05	E59	05	26.0		A	HAX	60	1	1	2
9467		VORO	05	21	2324	S07	E54	05	26.0			HRX	56	1		1
9467		LEAR	05	22	0025	S07	E55	05	26.1		A	HAX	60	1	2	3
9467		TACH	05	22	0619	S08	E49	05	25.9			DSO	145	2	3	4
9467		KAND	05	22	0950	S06	E49	05	26.1			HS		1	2	3
9467	30468	MWIL	05	22	1400	S09	E47	05	26.1	5	(AP)					
9467		SVTO	05	22	1445	S07	E46	05	26.1		A	HSX	60	1	2	2
9467		HOLL	05	22	1450	S03	E47	05	26.1		A	HSX	60	1	2	4
9467		VORO	05	23	0002	S07	E41	05	26.1			HRX	67	3		2
9467		LEAR	05	23	0622	S07	E38	05	26.1		A	HSX	50	1	2	1
9467		TACH	05	23	0623	S06	E37	05	26.0			HSX	110	1	1	2
9467		KAND	05	23	0830	S06	E37	05	26.1			HS		1	2	1
9467		SVTO	05	23	1303	S09	E34	05	26.1		A	HSX	70	1	3	2
9467		HOLL	05	23	1330	S07	E34	05	26.1		A	HSX	100	1	2	4
9467	30468	MWIL	05	23	1400	S07	E34	05	26.1	5	(BP)					
9467		LEAR	05	24	0025	S07	E28	05	26.1		A	HAX	100	1	2	2
9467		TACH	05	24	0553	S05	E23	05	26.0			HSX	100	1	1	3
9467		KAND	05	24	0640	S07	E25	05	26.1			HS		1	2	3
9467		SVTO	05	24	0750	S08	E23	05	26.0		A	HSX	80	1	3	2
9467		RAMY	05	24	1115	S08	E21	05	26.0		A	HSX	60	1	2	2
9467		HOLL	05	24	1315	S07	E21	05	26.1		A	HSX	80	1	2	2
9467	30468	MWIL	05	24	1430	S08	E21	05	26.2	5	(BP)					
9467		LEAR	05	25	0120	S11	E09	05	25.7		B	BXO	60	5	3	3
9467		TACH	05	25	0658	S08	E08	05	25.9			CAO	103	4	4	4
9467		KAND	05	25	0950	S06	E10	05	26.1			CSO		2	3	5
9467		RAMY	05	25	1205	S07	E08	05	26.1		A	HSX	30	1	1	3
9467		HOLL	05	25	1312	S07	E06	05	26.0		A	HSX	80	1	2	3
9467	30468	MWIL	05	25	1430	S07	E06	05	26.0	5	(AP)					
9467		LEAR	05	26	0029	S07	W00	05	26.0		A	HSX	40	1	1	1
9467		TACH	05	26	0640	S09	W06	05	25.8			CSI	93	6	7	4
9467		SVTO	05	26	0853	S06	W05	05	26.0		A	HAX	80	1	3	2
9467		RAMY	05	26	1301	S07	W07	05	26.0		A	HSX	40	1	1	2

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(Ordered by Central Meridian Passage Date)

MAY 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9467		HOLL	05	26	1329	S07	W07	05	26.0		A	HSX	80	1	2	3
9467		KAND	05	26	1330	S06	W07	05	26.0			HS		1	2	3
9467	30468	MWIL	05	26	1430	S07	W08	05	26.0	5	(AP)					
9467		VORO	05	26	2327	S08	W13	05	26.0			HAX	48	1		3
9467		LEAR	05	27	0027	S07	W13	05	26.0		A	HSX	40	1	2	2
9467		SVTO	05	27	0515	S06	W16	05	26.0		A	HSX	60	1	3	3
9467		TACH	05	27	0547	S06	W16	05	26.0			HSX	80	1	1	2
9467		KAND	05	27	0800	S08	W17	05	26.0			HS		1	2	3
9467		RAMY	05	27	1220	S07	W22	05	25.9		B	CSO	40	3	8	3
9467	30468	MWIL	05	27	1400	S07	W20	05	26.1	5	(AP)					
9467		HOLL	05	27	1720	S05	W22	05	26.1		A	HAX	80	1	2	2
9467		VORO	05	27	2116	S07	W25	05	26.0			HAX	71	1		2
9467		LEAR	05	28	0025	S07	W27	05	26.0		A	HSX	50	1	2	2
9467		SVTO	05	28	0503	S07	W29	05	26.0		A	HSX	100	1	2	3
9467		KAND	05	28	0640	S07	W30	05	26.0			HS		2	1	3
9467		RAMY	05	28	1233	S06	W33	05	26.0		A	HSX	30	1	1	3
9467	30468	MWIL	05	28	1430	S07	W35	05	26.0	4	(AP)					
9467		HOLL	05	28	1500	S05	W35	05	26.0		A	HAX	50	2	2	3
9467		VORO	05	28	2303	S07	W40	05	26.0			HSX	44	1		2
9467		LEAR	05	29	0225	S07	W42	05	25.9		A	HAX	30	1	1	2
9467		SVTO	05	29	0507	S08	W43	05	26.0		A	HAX	30	1	1	2
9467		TACH	05	29	0558	S08	W43	05	26.0			HSX	60	1	1	3
9467		KAND	05	29	0810	S06	W44	05	26.0			HR		1	1	3
9467		RAMY	05	29	1250	S06	W47	05	26.0		A	HSX	30	1	1	3
9467		HOLL	05	29	1310	S05	W47	05	26.0		A	HSX	60	1	2	2
9467	30468	MWIL	05	29	1415	S07	W47	05	26.1	5	(AP)					
9467		SVTO	05	30	0610	S07	W58	05	25.9		A	HSX	50	1	2	3
9467		TACH	05	30	0615	S06	W58	05	25.9			HSX	80	1	2	3
9467		KAND	05	30	0750	S07	W57	05	26.0			HS		2	1	3
9467		RAMY	05	30	1205	S06	W59	05	26.1		A	HSX	20	1	1	3
9467		HOLL	05	30	1400	S05	W61	05	26.0		A	HSX	40	1	2	3
9467	30468	MWIL	05	30	1400	S07	W61	05	26.0	4	(AP)					
9467		LEAR	05	31	0030	S07	W68	05	25.9		A	HSX	20	1	2	3
9467		VORO	05	31	0058	S07	W68	05	25.9			AXX	18	1		2
9467		SVTO	05	31	0515	S07	W70	05	26.0		A	HSX	50	1	1	3
9467		KAND	05	31	0815	S08	W72	05	25.9			HR		1	1	3
9467		TACH	05	31	0845	S08	W72	05	26.0			HSX	45	1	1	3
9467	30468	MWIL	05	31	1400	S07	W75	05	26.0	4	(AP)					
9467		HOLL	05	31	1448	S05	W77	05	25.8		A	AXX	10	1	1	3
9468		TACH	05	21	0624	N06	E78	05	27.1			HSX	65	1	2	3
9468		KAND	05	21	0650	N06	E77	05	27.0			CSO		3	4	3
9468	30472	RAMY	05	21	1247	N06	E70	05	26.8		B	DSO	90	3	10	1
9468		MWIL	05	21	1415	N06	E70	05	26.8	4	(AP)					
9468		HOLL	05	21	1515	N07	E69	05	26.8		B	CAO	60	2	5	2
9468		VORO	05	21	2324	N07	E65	05	26.8			HRX	69	1		1
9468		LEAR	05	22	0025	N07	E65	05	26.9		B	CAO	50	3	7	3
9468		TACH	05	22	0619	N06	E60	05	26.7			CSO	102	2	4	4
9468		KAND	05	22	0950	N07	E62	05	27.0			HS		2	6	3
9468	30472	MWIL	05	22	1400	N07	E57	05	26.8	5	(AP)					
9468	30475	SVTO	05	22	1445	N09	E59	05	27.0	4	(B)					
9468		HOLL	05	22	1450	N09	E58	05	27.0		B	CSO	60	6	8	4
9468		VORO	05	23	0002	N08	E53	05	27.0			CSO	121	5	2	2
9468		LEAR	05	23	0622	N07	E48	05	26.9		B	DAO	80	11	5	1
9468		TACH	05	23	0623	N06	E49	05	26.9			DAI	175	4	4	2
9468		KAND	05	23	0830	N07	E48	05	26.9			DAO		10	6	1
9468		RAMY	05	23	1232	N05	E45	05	26.9		B	DSO	170	9	8	3
9468		SVTO	05	23	1303	N03	E45	05	26.9		B	DAI	140	11	9	2
9468		HOLL	05	23	1330	N06	E44	05	26.8		B	DAI	210	23	8	4
9468	30472	MWIL	05	23	1400	N06	E45	05	26.9	5	(BG)					
9468		LEAR	05	24	0025	N05	E36	05	26.7		B	DAO	130	20	6	2
9468		TACH	05	24	0553	N06	E33	05	26.7			DAI	295	7	3	3
9468		KAND	05	24	0640	N06	E35	05	26.9			DAO		16	8	3
9468		SVTO	05	24	0750	N05	E33	05	26.8		B	DAI	130	18	9	2
9468		RAMY	05	24	1115	N05	E31	05	26.8		B	DSI	120	17	7	2
9468		HOLL	05	24	1315	N06	E31	05	26.9		B	DAI	200	25	8	2
9468	30472	MWIL	05	24	1430	N05	E30	05	26.8	5	(BP)					
9468		LEAR	05	25	0120	N07	E24	05	26.8		BG	DSO	80	24	9	3

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(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9468		TACH	05	25	0658	N06 E19	05	26.7			DAI	195	12	3	4
9468		KAND	05	25	0735	N07 E20	05	26.8			DAO		15	8	5
9468		RAMY	05	25	1205	N08 E18	05	26.8			DAO	100	17	8	3
9468		SVTO	05	25	1303	N03 E15	05	26.7		B	DAI	140	11	9	2
9468		HOLL	05	25	1312	N06 E17	05	26.8		B	DAI	100	26	8	3
9468	30472	MWIL	05	25	1430	N06 E16	05	26.8	5	(BP)					
9468		LEAR	05	26	0029	N06 E09	05	26.7		B	DAO	80	14	1	1
9468		TACH	05	26	0640	N05 E06	05	26.7			DAI	24	11	4	4
9468		SVTO	05	26	0853	N07 E06	05	26.8		B	DAO	160	15	9	2
9468		RAMY	05	26	1301	N06 E04	05	26.8		B	DAO	140	7	6	2
9468		HOLL	05	26	1329	N06 E03	05	26.8		B	DAI	170	23	8	3
9468		KAND	05	26	1330	N06 E02	05	26.7			DAO		16	9	3
9468	30472	MWIL	05	26	1430	N06 E02	05	26.7	4	(BP)					
9468		VORO	05	26	2327	N05 W03	05	26.7			DSO	126	5	4	3
9468		LEAR	05	27	0027	N06 W03	05	26.8		B	DAO	120	16	8	2
9468		SVTO	05	27	0515	N06 W06	05	26.8		B	DAO	120	18	9	3
9468		TACH	05	27	0547	N05 W07	05	26.7			DAI	177	5	5	2
9468		KAND	05	27	0800	N05 W07	05	26.8			DAO		8	8	3
9468		RAMY	05	27	1220	N06 W10	05	26.8		B	DSO	100	12	7	3
9468	30472	MWIL	05	27	1400	N05 W12	05	26.7	5	(BP)					
9468		HOLL	05	27	1720	N05 W14	05	26.7		B	DAO	40	7	6	2
9468		VORO	05	27	2116	N05 W16	05	26.7			DAI	151	6	4	2
9468		LEAR	05	28	0025	N04 W16	05	26.8		B	DAO	90	11	9	2
9468		SVTO	05	28	0503	N05 W19	05	26.8		B	DAO	100	7	8	3
9468		KAND	05	28	0640	N05 W20	05	26.8			DSO		3	5	3
9468		RAMY	05	28	1233	N05 W23	05	26.8		B	DSO	130	4	7	3
9468	30472	MWIL	05	28	1430	N05 W25	05	26.7	4	(BP)					
9468		HOLL	05	28	1500	N05 W25	05	26.7		B	DAO	90	11	8	3
9468		VORO	05	28	2303	N05 W31	05	26.6			CSO	99	2	4	2
9468		LEAR	05	29	0225	N04 W32	05	26.7		B	CSO	50	5	8	2
9468		SVTO	05	29	0507	N04 W33	05	26.7		B	DAO	60	5	8	2
9468		TACH	05	29	0558	N04 W34	05	26.7			CAO	100	3	5	3
9468		KAND	05	29	0810	N05 W36	05	26.6			CAO		3	6	3
9468		RAMY	05	29	1250	N06 W37	05	26.8		B	CSO	80	2	6	3
9468		HOLL	05	29	1310	N05 W39	05	26.6		B	DSO	70	3	6	2
9468	30472	MWIL	05	29	1415	N05 W39	05	26.7	5	(BP)					
9468		SVTO	05	30	0610	N04 W48	05	26.7		B	DSO	120	6	8	3
9468		TACH	05	30	0615	N05 W51	05	26.4			HSX	100	1	2	3
9468		KAND	05	30	0750	N04 W49	05	26.7			CAO		5	8	3
9468		RAMY	05	30	1205	N06 W54	05	26.5		A	HAX	70	1	2	3
9468	30472	MWIL	05	30	1400	N04 W53	05	26.6	5	(BP)					
9468		HOLL	05	30	1400	N05 W55	05	26.5		B	CAO	110	3	7	3
9468		LEAR	05	31	0030	N05 W61	05	26.4		A	HSX	40	1	2	3
9468		VORO	05	31	0058	N04 W62	05	26.4			HAX	95	1		2
9468		SVTO	05	31	0515	N05 W68	05	26.1		B	DAO	100	2	10	3
9468		KAND	05	31	0815	N04 W65	05	26.5			HS		1	2	3
9468		TACH	05	31	0845	N04 W67	05	26.3			HSX	90	1	1	3
9468	30472	MWIL	05	31	1400	N05 W69	05	26.4	4	(AP)					
9468		HOLL	05	31	1448	N07 W71	05	26.3		B	HAX	90	1	2	3
9468		LEAR	06	01	0015	N06 W75	05	26.5		A	HSX	60	1	2	4
9468		VORO	06	01	0444	N05 W77	05	26.5			HAX	59	1		2
9468		SVTO	06	01	0520	N05 W77	05	26.6		A	HSX	60	1	1	2
9468		TACH	06	01	0715	N04 W78	05	26.6			HSX	50	1	2	2
9468		KAND	06	01	0845	N05 W76	05	26.8			HA		2	3	4
9468		RAMY	06	01	1250	N08 W80	05	26.6		A	HSX	60	1	2	3
9468	30472	MWIL	06	01	1400	N05 W84	05	26.4	4	(AP)					
9468		HOLL	06	01	1432	N07 W82	05	26.6		A	AXX	20	1	1	3
9473		RAMY	05	26	1301	N11 E18	05	27.9		B	BXO	10	2	3	2
9473		HOLL	05	26	1329	N13 E17	05	27.8		B	BXO	10	3	3	3
9473		KAND	05	26	1330	N12 E17	05	27.8			BXO		3	3	3
9473	30482	MWIL	05	26	1430	N12 E16	05	27.8	4	(BF)					
9473		LEAR	05	27	0027	N12 E12	05	27.9		B	BXO	10	2	2	2
9473		SVTO	05	27	0515	N13 E09	05	27.9		A	HSX	10	1	1	3
9473		RAMY	05	27	1220	N12 E06	05	28.0		A	AXX		1		3
9473	30482	MWIL	05	27	1400	N12 E05	05	28.0	3	(AF)					
9473	30482	MWIL	05	29	1415	N08 W27	05	27.6	4	(AF)					
9472	30476	MWIL	05	22	1400	N13 E78	05	28.5	4	(AP)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9472		HOLL	05	22	1450	N12	E79	05	28.6		A	AXX	30	1	1	4
9472		VORO	05	23	0002	N12	E71	05	28.3			HRX	46	1		2
9472		LEAR	05	23	0622	N13	E66	05	28.2		B	CRO	20	3	6	1
9472		TACH	05	23	0623	N12	E67	05	28.3			HSX	35	1	1	2
9472		RAMY	05	23	1232	N11	E68	05	28.6		A	HSX	50	1	2	3
9472		SVTO	05	23	1303	N09	E66	05	28.5		A	HSX	50	1	1	2
9472		HOLL	05	23	1330	N13	E66	05	28.5		A	HAX	60	1	2	4
9472	30476	MWIL	05	23	1400	N13	E68	05	28.7	4	(BP)					
9472		LEAR	05	24	0025	N12	E58	05	28.4		A	HSX	40	1	1	2
9472		TACH	05	24	0553	N14	E54	05	28.3			HSX	40	1	1	3
9472		SVTO	05	24	0750	N11	E55	05	28.5		A	HRX	50	1	2	2
9472		RAMY	05	24	1115	N12	E53	05	28.5		A	HSX	30	1	2	2
9472		HOLL	05	24	1315	N13	E53	05	28.5		A	HAX	40	2	2	2
9472	30476	MWIL	05	24	1430	N12	E54	05	28.7	4	(B)					
9472		LEAR	05	25	0120	N12	E46	05	28.5		B	BXO	10	2	1	3
9472		TACH	05	25	0658	N13	E41	05	28.4			HSX	45	1	1	4
9472		RAMY	05	25	1205	N12	E40	05	28.5		A	HSX	20	1	1	3
9472		HOLL	05	25	1312	N13	E38	05	28.4		A	HSX	10	1	1	3
9472	30476	MWIL	05	25	1430	N13	E40	05	28.6	4	(BP)					
9472		LEAR	05	26	0029	N13	E33	05	28.5		A	HAX	20	1	1	1
9472		TACH	05	26	0640	N13	E29	05	28.5			HSX	45	1	1	4
9472		SVTO	05	26	0853	N12	E29	05	28.5		B	CAO	20	2	2	2
9472		RAMY	05	26	1301	N12	E26	05	28.5		A	AXX	10	2	2	2
9472		HOLL	05	26	1329	N13	E26	05	28.5		A	HAX	20	3	2	3
9472	30476	MWIL	05	26	1430	N14	E28	05	28.7	4	(BP)					
9472		VORO	05	26	2327	N12	E20	05	28.5			AXX	9	1		3
9472		LEAR	05	27	0027	N13	E20	05	28.5		B	BXO	20	4	3	2
9472		SVTO	05	27	0515	N12	E18	05	28.6		A	AXX		2	2	3
9472		TACH	05	27	0547	N15	E23	05	29.0			AR	2	2	2	2
9472		RAMY	05	27	1220	N14	E11	05	28.3		B	CSO	20	3	2	3
9472	30476	MWIL	05	27	1400	N15	E20	05	29.1	4	(B)					
9472		HOLL	05	27	1720	N15	E08	05	28.3		B	BXO	20	2	3	2
9472		VORO	05	27	2116	N15	E16	05	29.1			BXO	13	2	1	2
9472		SVTO	05	28	0503	N12	E05	05	28.6		A	AXX	10	2	2	3
9472	30476	MWIL	05	28	1430	N16	E11	05	29.4	3	(AF)					
9472		SVTO	05	29	0507	N13	W08	05	28.6		A	HRX	10	1	1	2
9472		TACH	05	29	0558	N12	W09	05	28.6			AR	11	1	1	3
9472		HOLL	05	29	1310	N13	W11	05	28.7		B	BXO	20	4	5	2
9472		HOLL	05	30	1400	N14	W26	05	28.6		A	AXX		1	1	3
9472		LEAR	05	31	0030	N14	W32	05	28.6		A	AXX		1		3
9483		LEAR	06	01	0015	S23	W45	05	28.6		B	DAO	50	6	3	4
9483		VORO	06	01	0444	S23	W49	05	28.5			CAO	50	4	3	2
9483		SVTO	06	01	0520	S23	W48	05	28.6		B	DAO	60	7	6	2
9483		TACH	06	01	0715	S23	W50	05	28.5			CAO	202	4	4	2
9483		KAND	06	01	0845	S23	W50	05	28.6			DSO		7	6	4
9483		RAMY	06	01	1250	S21	W53	05	28.6		B	DSO	60	5	6	3
9483	30494	MWIL	06	01	1400	S23	W55	05	28.4	4	(B)					
9483		HOLL	06	01	1432	S22	W57	05	28.3		B	DAO	90	9	8	3
9483		VORO	06	01	2112	S23	W59	05	28.4			DAO	52	3	6	2
9483		SVTO	06	02	0520	S23	W64	05	28.4		B	DAO	60	6	8	3
9483		TACH	06	02	0531	S23	W66	05	28.2			HA	105	2	7	3
9483		RAMY	06	02	1229	S22	W67	05	28.5		B	DSO	50	2	7	3
9483	30494	MWIL	06	02	1400	S23	W69	05	28.4	4	(BP)					
9483		HOLL	06	02	1411	S21	W69	05	28.4		B	CAO	70	4	8	4
9483		VORO	06	02	2126	S23	W77	05	28.0			HRX	32	1		2
9483		LEAR	06	03	0025	S22	W72	05	28.6		B	BXO	20	2	8	2
9477	30483	MWIL	05	26	1430	S14	E37	05	29.4	3	(AP)					
9477		VORO	05	26	2327	S15	E31	05	29.3			AXX	11	1		3
9477		LEAR	05	27	0027	S15	E33	05	29.5		B	BXO	20	3	5	2
9477		SVTO	05	27	0515	S16	E30	05	29.5		B	DAO	40	7	5	3
9477		TACH	05	27	0547	S14	E28	05	29.3			BXO	9	2	3	2
9477		KAND	05	27	0800	S14	E29	05	29.5			CSO		6	6	3
9477		RAMY	05	27	1220	S16	E26	05	29.5		B	DSO	40	7	6	3
9477	30483	MWIL	05	27	1400	S15	E25	05	29.5	4	(B)					
9477		HOLL	05	27	1720	S17	E22	05	29.4		B	DAO	40	4	6	2
9477		VORO	05	27	2116	S16	E22	05	29.5			BXI	31	3	5	2
9477		LEAR	05	28	0025	S15	E19	05	29.4		B	CAO	20	7	6	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9477		SVTO	05 28 0503	S15	E17	05 29.5		B	DAO	30	4	5	3
9477		KAND	05 28 0640	S15	E17	05 29.6			CRO		5	6	3
9477		RAMY	05 28 1233	S16	E13	05 29.5			DSO	30	3	6	3
9477	30483	MWIL	05 28 1430	S15	E12	05 29.5	4	(B)					
9477		HOLL	05 28 1500	S16	E11	05 29.4		B	CSO	40	7	7	3
9477		VORO	05 28 2303	S16	E05	05 29.3			AXX	6	1		2
9477		LEAR	05 29 0225	S16	E02	05 29.2		A	AXX		1		2
9477		SVTO	05 29 0507	S16	E02	05 29.4		A	AXX		1		2
9477		RAMY	06 01 1250	S15	W37	05 29.8		B	BXO		2	1	3
9477	30495	MWIL	06 01 1400	S17	W38	05 29.8	4	(BP)					
9477		HOLL	06 01 1432	S16	W38	05 29.8		B	BXO	10	2	2	3
9477		VORO	06 01 2112	S17	W42	05 29.8			BXO	21	3	2	2
9477		SVTO	06 02 0520	S17	W46	05 29.8		B	CRO	30	6	4	3
9477		TACH	06 02 0531	S18	W47	05 29.7			AR	3	2	3	3
9477	30495	MWIL	06 02 1400	S17	W51	05 29.8	4	(BP)					
9477		HOLL	06 02 1411	S17	W50	05 29.9		B	BXO	10	3	3	4
9478A	30479	MWIL	05 25 1430	N27	E50	05 29.5	3	(B)					
9478A	30479	MWIL	05 26 1430	N28	E36	05 29.4	4	(AP)					
9478		KAND	05 22 0950	N13	E85	05 28.8			HS		1	1	3
9478		KAND	05 23 0830	N13	E68	05 28.5			HR		1	1	1
9478		KAND	05 24 0640	N13	E57	05 28.6			HA		1	2	3
9478		KAND	05 25 0735	N13	E42	05 28.5			HA		1	1	5
9478		KAND	05 26 1330	N13	E26	05 28.5			BXO		2	2	3
9478		LEAR	05 27 0027	N15	E27	05 29.1		B	BXO	20	3	2	2
9478		SVTO	05 27 0515	N13	E22	05 28.9		B	BXO	20	4	10	3
9478		SVTO	05 27 0515	N14	E25	05 29.1		B	BXO		2	3	3
9478		SVTO	05 27 0515	N16	E28	05 29.3		B	DRO	10	2	2	3
9478		KAND	05 27 0800	N15	E24	05 29.1			CAO		3	2	3
9478		LEAR	05 28 0025	N15	E13	05 29.0		B	BXO	10	2	2	2
9478		SVTO	05 28 0503	N12	E15	05 29.3		B	CRO	10	2	3	3
9478		LEAR	05 29 0225	N13	E07	05 29.6		A	AXX		1		2
9478	30487	MWIL	05 29 1415	N13	W08	05 29.0	4	(BP)					
9478	30487	MWIL	05 30 1400	N13	W20	05 29.1	4	(B)					
9478	30487	MWIL	05 31 1400	N17	W32	05 29.1	3	(AF)					
9474		HOLL	05 25 1312	N18	E72	05 31.0		A	AXX	10	1	1	3
9474	30480	MWIL	05 25 1430	N19	E70	05 30.9	4	(B)					
9474		LEAR	05 26 0029	N18	E62	05 30.7		A	HSX	40	1	1	1
9474		SVTO	05 26 0853	N19	E62	05 31.1		B	DAO	50	2	7	2
9474		RAMY	05 26 1301	N18	E58	05 30.9		B	BXO	20	2	3	2
9474		HOLL	05 26 1329	N18	E60	05 31.1		B	BXO	20	5	6	3
9474		KAND	05 26 1330	N20	E58	05 31.0			AX		3	2	3
9474	30480	MWIL	05 26 1430	N20	E58	05 31.0	4	(B)					
9474		VORO	05 26 2327	N19	E52	05 30.9			AXX	41	2		3
9474		LEAR	05 27 0027	N19	E52	05 31.0		B	CAO	30	3	5	2
9474		SVTO	05 27 0515	N18	E51	05 31.1		B	DAO	50	5	6	3
9474		TACH	05 27 0547	N23	E51	05 31.2			HA	61	2	2	2
9474		KAND	05 27 0800	N20	E49	05 31.1			CSO		4	7	3
9474		RAMY	05 27 1220	N20	E48	05 31.2		B	DAO	50	6	7	3
9474	30480	MWIL	05 27 1400	N20	E46	05 31.1	5	(B)					
9474		HOLL	05 27 1720	N17	E47	05 31.3		B	CAO	50	5	7	2
9474		VORO	05 27 2116	N19	E42	05 31.1			CAI	171	5	3	2
9474		LEAR	05 28 0025	N20	E40	05 31.1		B	CAO	30	9	8	2
9474		SVTO	05 28 0503	N19	E37	05 31.0		B	DAO	70	4	5	3
9474		KAND	05 28 0640	N20	E36	05 31.0			CSO		6	4	3
9474		RAMY	05 28 1233	N19	E34	05 31.1		B	CSO	90	4	8	3
9474	30480	MWIL	05 28 1430	N20	E30	05 30.9	5	(BP)					
9474		HOLL	05 28 1500	N18	E35	05 31.3		B	CAO	50	14	8	3
9474		VORO	05 28 2303	N20	E26	05 30.9			HAX	96	5		2
9474		LEAR	05 29 0225	N19	E26	05 31.1		B	CAO	60	12	7	2
9474		SVTO	05 29 0507	N19	E24	05 31.0		B	DAO	90	8	8	2
9474		TACH	05 29 0558	N20	E23	05 31.0			CAI	110	11	5	3
9474		KAND	05 29 0810	N20	E22	05 31.0			CSO		4	3	3
9474		RAMY	05 29 1250	N20	E20	05 31.1		B	DSO	30	4	5	3
9474	30480	HOLL	05 29 1310	N19	E21	05 31.1		B	CAO	60	10	6	2
9474		MWIL	05 29 1415	N20	E20	05 31.1	4	(BP)					
9474		SVTO	05 30 0610	N21	E12	05 31.2		B	DSO	40	8	7	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9474		TACH	05 30	0615	N20	E08	05 30.9			HSX	30	1	1	3
9474		KAND	05 30	0750	N20	E10	05 31.1			CAO		8	6	3
9474		RAMY	05 30	1205	N20	E06	05 31.0			HSX	10	1	1	3
9474	30480	MWIL	05 30	1400	N20	E06	05 31.0	4	(BP)					
9474		HOLL	05 30	1400	N20	E08	05 31.2		B	CSO	30	7	7	3
9474		LEAR	05 31	0030	N20	W02	05 30.9		B	CSO	10	2	1	3
9474		VORO	05 31	0058	N20	E01	05 31.1			BXI	18	4	5	2
9474		SVTO	05 31	0515	N20	W04	05 30.9		A	HAX	10	1	1	3
9474		KAND	05 31	0815	N19	W05	05 31.0			AX		2	1	3
9474		TACH	05 31	0845	N21	W03	05 31.1			BXO	38	4	5	3
9474	30480	MWIL	05 31	1400	N20	W07	05 31.0	5	(BP)					
9474		HOLL	05 31	1448	N20	W08	05 31.0		B	CSO	30	3	2	3
9474		LEAR	06 01	0015	N20	W15	05 31.0		B	CRO	10	2	2	4
9474		VORO	06 01	0444	N20	W17	05 31.0			AXX	7	1		2
9474		SVTO	06 01	0520	N19	W17	05 31.0		A	AXX		1		2
9474		TACH	06 01	0715	N19	W18	05 31.0			AXX	30	1	1	2
9474		KAND	06 01	0845	N19	W18	05 31.0			AX		3	2	4
9474		RAMY	06 01	1250	N21	W21	05 31.0		A	AXX		1		3
9474	30480	MWIL	06 01	1400	N20	W21	05 31.0	4	(AP)					
9474		HOLL	06 01	1432	N21	W22	05 31.0		A	AXX	20	2	1	3
9474		SVTO	06 02	0520	N21	W28	05 31.1		B	BXO		3	5	3
9474		HOLL	06 03	1433	N22	W46	05 31.1		A	AXX	10	1	1	4
9477A	30499	MWIL	06 02	1400	S17	W32	05 31.1	4	(B)					
9477A		VORO	06 02	2126	S16	W35	05 31.2			BXO	21	2	1	2
9477A		LEAR	06 03	0025	S16	W37	05 31.2		B	BXO	10	2	3	2
9477A	30499	MWIL	06 03	1430	S17	W45	05 31.2	3	(AP)					

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth

MWIL = Mt. Wilson
PALE = Palehua

RAMY = Ramey
SVTO = San Vito

TACH = Tashkent
VORO = Voroshilov

SUDDEN IONOSPHERIC DISTURBANCES

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MAY 2001

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF- SPA	SES			
01	1428	1441	1510	1-	5		1			3	1436	C1.7	9433
01	1500	1509	1541	2	3					4	1455	C2.2	9441
01	1642	1656	1733	1	5		1			1	1652	C2.0	9445
01	1726	1734	1813	2	3					8	1723	C4.2	9441
01	1900	1910	2058	3	1					6	1858	M2.4	9433
02	0035	0041	0125	2+	1					1	0032	M1.8	9441
02	0627	0631	0652	3-	5	1	2	1		3	0626	C8.7	9441
02	1322	1348	1425	1	1		1				No flare		
02	1709	1716	1757	2	3					4	1708	C1.9	
02	1930	1935	2011	2-	3					7	1928	C2.4	
03	0545	0548	0600	1-	3					2	0544	C1.6	
03	2135	2141	2213	2-	3					3	2116	C2.3	
04	0548	0558	0640	2	1		1				No flare		
04	1439	1445	1530	2-	1					1	1440	C4.1	9447
04	1443	1504	1540	2+	3					2	1440	C4.1	9447
04	1905	1925	2015	2+	1					1	1904		9447
05	0848	0851	0923	3	5	1	2	1		2	0842	M1.0	9445
05	1810	1818	1908	2+	3					8	1807	C6.3	9445
05	2106	2109	2113	1-	1					1	2100	B9.3	
06	1145	1148	1248	2	1					1	1140	C2.8	
06	1933	1948	2025	2	3					5	1931	C7.9	9445
06	1953	2004	2039	2-	3					4	1931	C7.9	9445
07	1211	1224	1245	2	5	1		1		1	1136	C3.9	9445
07	1535	1600	1615	2	1					1	1534	C2.2	9445
08	0043	0055	0135	2+	1					1	0036	C9.9	9445
08	0735	0741	0814	1	1		1				No flare		
08	1516	1517	1530	1-	1					1	No flare		
08	1616	1622	1644	1+	1					1	1610	C1.6	
09	0850	0856	0947	1+	1					1	0847	C1.5	9445
10	1444	1515	1610	2-	5		1			2	1448	C6.1	9454
11	0835	0859	1026	1	1		1				No flare		
11	1005	1008	1022	1-	1					1	1000	C1.6	9455
11	2018	2022	2054	2-	3					3	2017	C3.7	
11	2110	2130	2216	2+	1					1	*		
11	2233	2243	2310	2-	3					2	2231	C2.7	
12	0835	0852	0915	1-	3		1			1	0841	B9.5	9454
12	0959	1006	1024	2	5	1	2	1		1	0954	C2.8	9455
12	1208	1213	1230	3-	5	1	2	1		1	1202	C5.7	9454
12	1411	1420	1503	1+	5		1			4	1408	C4.0	9455
12	1443	1450	1503	2	5	1	1	1		3	1440	C4.2	9455
12	1716	1723	1741	1	3					3	1714	C3.5	9455
12	2325	2331	0103	3-	3					2	2242	M3.0	9455
13	0023	0028	0040	1-	1					1	0020	C3.4	9455
13	0304	0307	0330	1+	1					1	0258	M3.6	9455
13	0818	0821	0831	2-	5	1	1	1		3	0813	C3.4	9455
13	0949	1034	1204	1	1		1				0958	B9.7	9455
13	1401	1405	1443	1+	5	1	2	1		7	1358	C4.9	9455
13	1915	1919	1949	1+	3					6	1912	C3.3	
13	2051	2053	2115	1	1					1	2047	C1.6	
14	1220	1232	1245	1	1					1	1213	C2.3	9455
14	1827	1828	1849	1	1					1	No flare		
15	0258	0303	0335	2	1					1	0253	M1.0	9455
15	0839	0847	0912	1+	5		1			2	0834	C3.5	9455
15	1322	1333	1348	2	5	1	1	1		1	1316	C3.4	
15	1559	1610	1632	1	1		1				*		

* = no flare patrol.

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SUDDEN IONOSPHERIC DISTURBANCES
MAY 2001

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF- SPA	SES			
16	0630	0635	0659	2	5		2	1		2	0628	C4.2	9455
16	1039	1045	1106	3	5	1	2	1		5	1035	M1.3	9455
16	1436	1445	1513	2-	3					4	1435	C2.1	
16	1522	1538	1613	1+	5		1			1	1536	C2.7	9458
16	1543	1551	1620	2-	3					4	1536	C2.7	9458
16	1656	1719U	1758	1	1		1				No flare		
16	1834	1841	1905	2-	3					4	1833	C1.5	9455
16	1918	1924	1933	1-	1					1	1917	B8.5	
17	0650	0657	0703	1-	1					1	0647	C2.2	
17	1000	1006	1027	2	5	1	2	1		3	0957	C4.0	
17	1306	1313	1330	1	1					1	1309	B9.8	
17	1341	1347	1412	1+	3					3	1341	C1.9	9455
17	1439	1444	1504	1+	3					3	1439	C1.4	
17	1651	1655	1725	2	5			1		6	1646	M1.2	9455
17	1936	1953	2036	2+	3					6	1936	C7.0	9454
17	2015	2020	2045D	1	1					1	No flare		
17	2044	2049	2125	2-	3					6	2041	C9.1	9454
17	2140	2145	2237	2+	3					2	2136	C4.0	9461
18	0633	0635	0641	3	5	1	2	1		4	0629	C6.4	
18	1454	1500	1523	1+	3					3	1454	C2.4	
18	1538	1547	1619	2-	3					3	1539	C2.5	
18	1828	1835	1931	2+	3					7	1824	C5.7	
19	0210	0215	0230	1	1					1	*		
19	0742	0746	0753	1-	1					1	0741	C1.5	
19	1100	1104	1119	1+	5	1		1			*		
19	1437	1439	1446	2+	5		2	1		9	1433	C6.7	
19	2150	2200	2210D	2	1					1	2148	C2.1	
19	2210	2220	2250	2	1					1	No flare		
20	0601	0604	0638	3-	5	1	2	1		4	0600	M6.4	
20	0918	0923	0942	3	5	1	2	1		3	0912	M1.5	
20	1138	1141	1225	3-	5	1	2	1		6	1135	C6.1	
20	1436	1443	1520	2-	5		1			7	1432	C2.9	
20	1915	1925	2000	2	1					1	1907	B9.2	
20	1931	1941	2008	2-	3					4	1930	C1.3	
23	1618	1645U	1714	1	1		1				No flare		
23	2110	2113	2130	1	1					1	2103	B7.0	
24	1530	1534	1552	1	1					1	No flare		
24	1928	1934	2050	3-	3					3	1930	M1.2	9468
24	1935	1944	2051	2+	3					3	1930	M1.2	9468
25	1917	1930	2035	2+	1					1	1912	C5.2	9468
25	2205	2213	2240	2	1					1	2200	C2.8	9468
27	1210	1245	1304	1	1		1				No flare		
28	1552	1557	1616	1	3					3	1548	C1.2	
29	0523	0533	0557	1	1		1				0521	C4.4	9475
30	2150	2151	2201	1-	1					1	No flare		
31	1910	1912	1931	1-	3					2	1907	C1.7	

* = no flare patrol.

OBSERVATORIES REPORTING FOR MAY 2001

Alberta, Canada	SES	Koniz, Switzerland	SES
Bedford, Massachusetts, USA	SES	Mandaville, Arizona, USA	SES
Brookline, Massachusetts, USA	SES	Marlboro, Massachusetts, USA	SES
Cambridge, England, UK	SES	Nerja, Spain	SES
Edenvale, Rep of S. Africa	SES	Panska Ves, Czech Republic	SES, SEA, SWF
Houston, Texas, USA	SES	Sofia, Bulgaria	SES
Hudson, Ohio, USA	SES	Torrington, Connecticut, USA	SES
Isola del Gran Sasso, Italy	SES	Upice, Czech Republic	SEA

Observations are not necessarily continuous.

S O L A R R A D I O E M I S S I O N

Spectral Observations

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May 01

MAY 2001

OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
01	0000	0725	CULG	0209.0	0211.0	III	G	1	35	160	
			LEAR	0211.0	0211.0	III		1	32	79	
			CULG	0222.0	0222.0	III	B	1	35	180	
			LEAR	0222.0	0222.0	III		1	25	180	
			PALE	0222.0	0222.0	III		1	25	145	
	0000	0926	HIRA	0222.0	0222.5	III	B	1	30	190	
			POTS	0418.2	0419.9	DCIM		1	220	400	
	0414	1742	CULG	0441.0	0442.0	III	G	2	20	160	
			LEAR	0441.0	0443.0	III		1	25	180	
			SVTO	0441.0	0442.0	III		1	25	180	
			HIRA	0441.5	0442.0	III	B	2	25X	160	
			POTS	0441.5	0442.0	III	G	2	40X	90U	
			POTS	0447.3	0451.7	DCIM		1	250	450	
	0449	1707	ONDR								
			POTS	0503.2	0503.4	III	B	2	110U	170U	
			POTS	0528.0	0528.5	III	G	2	110U	145	
			SVTO	0528.0	0528.0	III		1	25	138	
			POTS	0548 E	1742 U	I	S,W	1	110U	350	
	0602	1203	IZMI	0602.0U	0622.0	I	N	1	200	270X	
			IZMI	0605.6	0605.7	III	B	2	205	270X	
			HIRA	0612.0	0612.5	III	B	1	220	410	
			IZMI	0612.3	0612.7	III	G	2	220	270X	
			POTS	0612.3	0612.7	DCIM		2	220	350	
			POTS	0622.5	0622.7	III	B	1	110U	170U	
			LEAR	0648.0	0649.0	III		1	25	180	
			IZMI	0709.4	0709.6	III	B	1	170	190	
			HIRA	0723.5	0724.0	III	B	2	80	110	
			POTS	0723.9	0724.1	III	B	2	110U	145	
			IZMI	0724.0	0724.1	III	B	2	75	120	
			IZMI	0730.5	0731.0	I	GG	2	185	200	
			POTS	0730.6	0730.7	III	B	1	110U	150	
			IZMI	0748.0	0748.1	III	B	2	30	95	
			POTS	0748.0	0748.2	III	B	1	40X	70	
			SVTO	0748.0	0748.0	III		1	25	53	
			LEAR	0835.0	0838.0	III		1	44	135	
			SVTO	0835.0	0837.0	III		1	25	131	
			IZMI	0836.0	0838.2	III	GG,FS	2	40	160	
			POTS	0836.0	0837.9	III	G	2	40X	155	
			IZMI	0859.0	0859.1	III	B	1	45	55	
			IZMI	0916.4	0916.8	III	GG	2	80	210	
			POTS	0916.4	0916.8	III	G	2	110U	170U	
			IZMI	0937.0	1132.0U	III	N	1	45	95	
			IZMI	0947.0U	0957.0	I	N	1	220	270X	
			POTS	0947.7	0947.9	III	B	1	55	160	
			POTS	1016.6	1036.3	III	GG	3	40X	250	
			IZMI	1021.4	1022.8	III	G	2	25X	240	
			IZMI	1024.5	1025.6	III	G	3	25X	130	
			IZMI	1029.6	1032.2	III	GG	2	25X	160	
			IZMI	1034.4	1036.3	III	G	2	40	95	
			IZMI	1122.1	1123.0	III	G	1	45	160	
			POTS	1122.5	1123.1	III	G	2	40X	170U	
			POTS	1153.1	1153.2	III	B	1	110U	145	
			POTS	1345.0	1345.1	UNCLF		2	200U	250	
			POTS	1434.3	1446.2	III	G,C	3	40X	400	
			HOLL	1437.0	1441.0	III		1	25	174	
			SGMR	1437.0	1438.0	III		3	30	75	
			SVTO	1437.0	1441.0	III		2	25	180	
			HOLL	1502.0	1503.0	III		1	25	52	
			SVTO	1502.0	1503.0	III		1	25	53	
			HOLL	1521.0	1523.0	III		1	25	82	
			SVTO			1521.0	1522.0	III		1	25	77
			POTS			1521.7	1521.9	III	B	1	40X	90U
			HOLL			1559.0	1559.0	III		1	25	126
			SVTO			1559.0	1559.0	III		1	25	141
			POTS			1559.5	1559.7	III	G	3	110U	225
			HOLL			1638.0	1728.0	III	N	1	25	84
			SGMR	1638.0	1638.0	III		1	30	65	
			SVTO	1638.0	1721.0	III	N	1	25U	75U	
			POTS	1638.1	1638.2	III	B	1	110U	160	

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MAY 2001

OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
01		PALE	1643.0	1812.0	III	N	1	25U	55U	
		SGMR	1722.0	1846.0	III	N	1	30	75	
		HOLL	1808.0	1820.0	III	N	1	25	80	
		HOLL	2016.0	2020.0	III		1	25	180	
		PALE	2016.0	2020.0	III		1	25U	113U	
		SGMR	2017.0	2020.0	III		1	30	80	
	1942 2400	HIRA	2017.5	2018.5	III	B	2	30	400	
		PALE	2122.0	2122.0	III		1	25U	65U	
		SGMR	2122.0	2122.0	III		1	30	80	
	2035 2400	CULG	2122.0	2122.0	III	B	1	35	90	
02		LEAR	0210.0	0211.0	III		1	25	103	
	0000 0725	CULG	0211.0	0211.0	III	B	1	35	90	
	0414 0518	POTS	0435.7	0436.4	DCIM		2	300	450	
		POTS	0441.7	0441.8	DCIM		1	200U	400	
	0447 1708	ONDR								
		POTS	0456	0518 U	I	S,W	1	120	400	
		POTS	0510.0	0510.1	III	B	1	110U	160	
		POTS	0510.2	0510.5	DCIM		2	200U	375	
	0000 0927	HIRA	0514.5	0516.0	III	G	1	50	190	
		POTS	0514.9	0516.1	III	G	2	110U	170U	
		CULG	0515.0	0516.0	III	G	1	23	160	
		LEAR	0515.0	0515.0	III		1	25	153	
		SVTO	0515.0	0515.0	III		1	25	151	
	0528 1722	POTS	0528 E	1722 U	I	S	1	110U	325	
		POTS	0528.1	0528.6	III	G	2	110U	150	
		CULG	0540.0	0629.0	III	N	1	30	180	
		POTS	0541.9	0546.5	III	G	2	110U	275	
	0550 1200	IZMI	0553.0	0700.0U	I	N	1	130	270X	
		IZMI	0558.0	1140.0U	III	N	1	45	95	
		IZMI	0602.7	0607.2	I	GG	2	70	95	
		IZMI	0604.4	0604.5	III	B	2	180	215	
		SVTO	0606.0	0606.0	III		1	25	72	
		IZMI	0606.3	0608.8	III	GG	2	45	95	
		POTS	0613.4	0613.6	DCIM		1	200U	400	
		LEAR	0628.0	0628.0	III		1	51	173	
		SVTO	0628.0	0629.0	III		1	42U	83U	
		POTS	0628.4	0629.1	III	G,U	3	110U	170U	
		HIRA	0628.5	0629.0	III	B	1	70	200	
		IZMI	0628.6	0629.0	III	G	2	45	210	
		IZMI	0631.2	0631.6	III	G	1	180	270X	
		IZMI	0951.6	0951.7	III	G	1	190	270X	
		IZMI	0954.1	0954.2	III	G	1	175	270X	
		SVTO	0957.0	0957.0	III		1	130	170	
		POTS	0957.2	0957.7	III	G,U	3	110U	250	
		IZMI	0957.3	0957.7	III	G	2	130	270X	
		POTS	0957.3	0957.7	DCIM		2	200U	550	
		IZMI	1024.0	1150.0U	I	N	1	160	240	
		POTS	1041.9	1042.1	DCIM		2	290	500	
		IZMI	1100.5	1100.8	III	B	2	25	210	
		POTS	1100.5	1100.9	III	G	2	40X	170U	
		POTS	1113.7	1113.9	III	B	2	110U	145	
		IZMI	1122.3	1127.0	III	GG	2	45	160	
		POTS	1122.3	1126.8	III	G	2	40X	170U	
		POTS	1142.9	1143.0	III	B	1	130	170U	
		POTS	1231.2	1232.0	III	G	2	40X	250	
		SVTO	1413.0	1424.0	III	N	1	25U	83U	
		POTS	1420.5	1421.2	III	G	2	40X	250	
		POTS	1450.9	1451.0	III	G	2	110U	170U	
		HOLL	1526.0	1529.0	III		1	25	125	
		SGMR	1526.0	1529.0	III		1	30	80	
		SVTO	1526.0	1529.0	III		2	25	180	
		POTS	1526.8	1529.4	III	G	3	40X	250	
		POTS	1616.8	1617.2	DCIM		2	200U	400	
		HOLL	1746.0	1747.0	III		1	25	134	
		PALE	1746.0	1747.0	III		1	25U	85U	
		SGMR	1746.0	1747.0	III		1	30	70	
		HOLL	1945.0	1957.0	III		1	25	151	
		PALE	1945.0	2024.0	III	N	1	25	85	

S O L A R R A D I O E M I S S I O N

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start End (UT) (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
02		SGMR	1947.0	1948.0	III		1	30	80	
	1941 2400	HIRA	2003.0	2003.5	III	G	1	120	400	
	2040 2400	CULG	2040.0E	2400.0D	I	S,C	1	60	160	
03	0000 0725	CULG	0000.0E	0725.0D	I	S,C	1	50	170	
		CULG	0015.0	0016.0	III	G	1	30	170	
		LEAR	0015.0	0026.0	III	N	1	32	180	
		PALE	0015.0	0035.0	III	N	1	25	180	
		CULG	0022.0	0026.0	III	G	1	30	180	
	0000 0928	HIRA	0024.0	0025.0	III	G	1	50	270	
		CULG	0033.0	0036.0	III	G	2	30	180	
		LEAR	0033.0	0036.0	III		1	25	180	
		HIRA	0034.0	0035.5	III	G	2	30	200	
		LEAR	0055.0	0734.0	CONT		1	62	180	
		HIRA	0331.5	0333.0	III	G	1	140	370	
	0415 1736	POTS	0445 E	1736 U	I	S,C,DC	2	110U	300	
		CULG	0529.0	0530.0	III	G	3	18	90	
		LEAR	0529.0	0530.0	V		2	25	119	
		SVTO	0529.0	0530.0	III		1	25	75	
		POTS	0529.4	0529.8	III	B	2	40X	70	
		HIRA	0529.5	0530.0	III	B	2	25X	70	
	0601 1200	IZMI	0545.0E	1200.0D	III	N	1	30	95	
		IZMI	0601.0E	0848.0	I	S,C	2	130	270X	
		CULG	0635.0	0635.0	III	B	1	30	80	
		IZMI	0712.8	0713.0	III	B	2	45	95	
		POTS	0712.9	0713.0	III	B	1	40X	70	
		IZMI	0723.1	0723.5	I	GG,DC	2	160	190	
		IZMI	0801.2	0801.3	UNCLF		2	44	55	
	0446 1710	ONDR	0808.2	0808.3	DCIM	G	2	800X	1691	
		IZMI	0812.0	0829.0	III	S	2	25X	270X	
		LEAR	0812.0	0828.0	III	N	1	25	180	
		POTS	0812.0	0828.8	III	GG,RS	2	40X	275	
		SVTO	0812.0	0830.0	III	N	1	25	154	
		IZMI	0847.7	1200.0D	I	N,C	2	50	270X	
		IZMI	0947.3	0947.6	UNCLF		2	150	215	
		POTS	1235.0	1235.1	III	G,RS	2	40X	70	
		POTS	1306.4	1308.4	III	G,RS	2	40X	70	
		POTS	1316.5	1316.6	III	B	1	45	90U	
		POTS	1346.1	1346.5	III	B	1	40X	170U	
		POTS	1356.9	1357.1	III	B	1	40X	70	
		POTS	1403.9	1406.7	III	G	2	40X	225	
		POTS	1427.8	1433.2	III	G	2	40X	225	
		SVTO	1432.0	1432.0	III		1	29U	63U	
		POTS	1627.7	1627.8	III	B	1	40X	70	
		POTS	1709.8	1709.9	III	B	1	40X	80	
		POTS	1733.2	1733.4	III	B	2	40X	120	
		PALE	1921.0	2215.0	III	N	1	25	90	
		HOLL	1927.0	1929.0	III		1	25	112	
	1940 2400	HIRA								
	2040 2400	CULG	2126.0	2400.0D	I	S	1	120	180	
		PALE	2246.0	2247.0	III		2	25	180	
		LEAR	2300.0	0126.0	CONT		1	115	180	
04	0000 0725	CULG	0000.0E	0725.0D	I	S	1	110	180	
	0414 1738	POTS	0431 E	1738 U	I	S,C,DC	2	110U	300	
	0444 1711	ONDR								
		SVTO	0511.0	1724.0	CONT		1	25U	180U	
		IZMI	0602.0E	1200.0	III	N	2	40	95	
	0602 1200	IZMI	0602.0E	1200.0	I	S,C	2	75	270X	
		IZMI	0622.8	0623.6	III	G	2	165	270X	
		CULG	0706.0	0706.0	III	B	1	30	110	
		IZMI	0706.0	0706.3	III	B	2	45	190	
		POTS	0706.0	0706.2	III	B	2	40X	150	
		IZMI	0710.3	0710.4	III	B	2	45	95	
		LEAR	0732.0	0733.0	III		2	25	180	
		SVTO	0732.0	0733.0	III		2	25	180	
	0000 0929	HIRA	0732.5	0733.0	III	B	2	30	200	
		IZMI	0732.6	0733.6	III	G,C	2	25X	220	
		POTS	0732.6	0741.6	III	G,U	3	40X	300	

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start End (UT) (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
04		HIRA	0737.5	0738.0	III	B	1	80	310	
		IZMI	0737.7	0738.2	III	G,RS	2	45	270X	
		IZMI	0740.2	0742.8	III	GG	2	30	100	
		IZMI	0823.2	0824.2	I	GG,DC	2	175	205	
		POTS	0830.7	0831.3	III	G	1	40X	120	
		IZMI	0831.1	0831.3	III	B	2	40	95	
		IZMI	0844.7	0844.8	III	B	2	40	75	
		POTS	0844.7	0844.8	III	B	2	40X	90U	
		POTS	0849	1527	III	N	1	40X	90U	
		IZMI	0938.1	0938.3	III	B	1	25	90	
		IZMI	0946.2	0946.3	III	B	2	30	70	
		IZMI	0959.8	1000.0	III	B	2	45	90	
		IZMI	1121.1	1121.2	III	B	2	40	65	
		POTS	1121.1	1121.3	III	G	2	40X	70	
		POTS	1140.1	1140.5	III	G	2	40X	90U	
		POTS	1224.6	1224.8	III	B	2	40X	80	
		POTS	1259.8	1300.9	III	G	2	40X	70	
		POTS	1641.5	1641.8	III	G,RS	2	145	250	
		HOLL	1720.0	1720.0	III		1	25	90	
		PALE	1934.0	2202.0	III	N	1	25	85	
		HOLL	1946.0	1947.0	III		1	25	150	
		SGMR	1946.0	1947.0	III		1	30	60	
	2040 2342	CULG	2040.0E	2342.0D	I	S	1	100	170	
	1939 2400	HIRA	2054.0	2054.5	III	B	1	80	300	
		CULG	2055.0	2129.0	III	N	1	23	140	
		HIRA	2055.0	2055.5	III	B	1	80	300	
		CULG	2132.0	2132.0	III	B	3	28	140	
		HIRA	2132.0	2133.0	III	B	2	25X	130	
		SGMR	2132.0	2132.0	III		1	30	80	
		HOLL	2257.0	2259.0	III		1	25	172	
		CULG	2258.0	2259.0	III	G	2	35	150	
		HIRA	2258.0	2258.5	III	B	2	30	150	
		LEAR	2300.0	0940.0	CONT		1	25	180	
		CULG	2308.0	2314.0	III	G	1	40	160	
		LEAR	2313.0	2314.0	III		1	25	180	
		HIRA	2313.5	2314.0	III	B	1	50	220	
05	0414 1744	POTS	0441 E	1744 U	I	S,C,DC	2	110U	350	
		POTS	0441.9	0442.4	III	G	3	110U	155	
	0000 0929	HIRA	0442.0	0442.5	III	B	1	60	140	
		POTS	0448.9	0450.3	III	GG,RS	2	110U	170U	
		POTS	0451.4	0452.7	III	G,RS	3	110U	170U	
		HIRA	0452.0	0452.5	III	B	2	50	190	
		LEAR	0452.0	0452.0	III		1	54	180	
		SVTO	0452.0	0834.0	III	N	1	28U	150U	
		LEAR	0457.0	0458.0	III		1	25	180	
		HIRA	0458.0	0458.5	III	B	2	30	140	
		POTS	0458.0	0458.3	III	G	3	40X	145	
		POTS	0514.0	0514.6	III	G	2	110U	170U	
		SVTO	0518.0	1315.0	CONT		1	37U	82U	
		POTS	0548.5	0548.7	III	B	3	110U	250	
	0601 1200	IZMI	0601.0E	1200.0	III	N	1	40	95	
		IZMI	0601.0E	1200.0	I	S,C	2	45	215	
		IZMI	0608.3	0608.5	III	B	2	45	100	
		IZMI	0612.4	0612.5	III	B	2	40	90	
		POTS	0612.4	0612.6	III	B	1	40X	90U	
		IZMI	0620.9	0621.1	III	B	2	125U	270	
		POTS	0620.9	0621.2	III	B	2	110U	310	
		HIRA	0621.0	0621.5	III	B	1	100	210	
		POTS	0627.9	0631.3	III	G	3	40X	250	
		HIRA	0628.0	0629.0	III	B	1	30	200	
		IZMI	0628.0	0628.7	III	GG	2	40	215	
		HIRA	0631.0	0631.5	III	B	1	60	240	
		IZMI	0631.0	0631.3	III	G	2	55	260	
		IZMI	0809.6	0812.3	III	GG,FS	2	45	230	
		POTS	0809.6	0811.2	III	G,U	2	40X	225	
		POTS	0811.8	0812.4	III	G	2	40X	160	
		POTS	0812	1219	III	N	1	40X	90U	
		POTS	0816.5	0817.2	III	G	2	40X	300	

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
05	0443 1713	IZMI	0835.4	0837.0	III	G	1	125	270X	
		POTS	0835.5	0835.6	III	B	2	110U	170U	
		IZMI	0841.2	0846.5	III	GG	1	45	90	
		ONDR	0846.3	0856.4	DCIM		1	2000X	4500X	
		IZMI	0858.7	0859.0	III	G	1	50	270X	
		POTS	0858.7	0901.5	III	G	2	60	300	
		IZMI	1116.1	1116.3	III	BG	1	170	270X	
		POTS	1116.1	1116.2	III	B	1	150	300	
		IZMI	1125.4	1125.6	III	G	2	55	270X	
		POTS	1125.4	1125.6	III	B	2	60	325	
		IZMI	1140.6	1141.1	III	G	2	40	70	
		POTS	1204.7	1209.5	III	G	3	40X	300	
		POTS	1405.6	1409.5	III	G	3	40X	325	
		HOLL	1407.0	1408.0	III		1	41	176	
		SVTO	1407.0	1409.0	III		1	28U	164U	
		SGMR	1408.0	1408.0	III		1	40	70	
		POTS	1727.8	1734.4	III	G	2	140	400	
		HOLL	2319.0	2321.0	III		1	25	129	
		LEAR	2319.0	2321.0	III		1	25	156	
		PALE	2319.0	2320.0	III		1	25U	85U	
	1938 2400	HIRA	2319.5	2320.5	III	B	1	25X	200	
		LEAR	2333.0	0114.0	III	N	1	25	126	
06	0000 0929	HIRA	0003.0	0004.5	III	G	2	25X	230	
	0414 1741	POTS	0440	1741 U	I	S,W	1	110U	350	
	0441 1714	ONDR								
	0550 1200	IZMI	0556.0U	1200.0	III	N	1	45	95	
		IZMI	0637.0U	1200.0	I	N	1	190	270	
		HIRA	0649.0	0649.5	III	B	1	60	180	
		LEAR	0649.0	0650.0	III		1	65	180	
		SVTO	0649.0	0649.0	III		1	25U	142U	
		IZMI	0649.3	0649.9	III	GG	2	45	180	
		POTS	0649.3	0649.7	III	G	2	40X	170U	
		IZMI	0748.0	0748.6	III	GG	2	185	270X	
		POTS	0748.0	0748.5	DCIM		1	200U	325	
		POTS	0855.9	0856.3	III	G	1	135	170U	
		IZMI	0944.4	0944.7	III	G	2	45	95	
		POTS	0944.4	0944.7	III	G	1	40X	170U	
		SVTO	1027.0	1033.0	III		1	25U	74U	
		SGMR	1240.0	1240.0	III		1	30	80	
		POTS	1444.3	1444.6	DCIM		1	225	400	
	1938 2400	HIRA								
	2210 2400	CULG								
		HOLL	2347.0	0031.0	III	N	1	25	133	
07	0000 0725	CULG	0359.0	0400.0	III	G	1	40	110	
	0000 0930	HIRA	0359.5	0400.0	III	B	1	25X	160	
	0440 1715	ONDR								
	0559 1200	IZMI								
		HOLL	1821.0	1821.0	III		1	25	86	
		PALE	1821.0	1821.0	III		2	25U	86U	
		SGMR	1821.0	1835.0	III	N	2	30	80	
		PALE	1834.0	1835.0	III		1	25U	55U	
	1936 2400	HIRA								
	2040 2400	CULG								
08	0000 0725	CULG								
	0439 1717	ONDR								
	0000 0932	HIRA	0622.0	0622.0	III	B	1	120	220	
	0550 1200	HIRA	0721.5	0722.0	III	B	1	110	380	
		IZMI	0721.7	0722.1	III	G	2	125	270X	
		HIRA	0728.5	0729.0	III	B	1	25X	280	
		IZMI	0728.7	0729.0	III	B	2	25X	160	
		LEAR	0856.0	0857.0	III		1	25	111	
		SVTO	0856.0	0859.0	III		2	25U	82U	
		HIRA	0856.5	0857.0	III	B	1	30	160	
		IZMI	0856.8	0857.1	III	B	2	25X	130	
		IZMI	0857.0	0857.4	V		2	25X	40	
		IZMI	0943.2	0943.5	III	B	1	45	95	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
08			SVTO	1220.0	1220.0	III		1	25	57	
	1935	2400	HIRA								
	2040	2400	CULG								
09	0000	0725	CULG								
	0437	1718	ONDR								
	0609	1200	IZMI	0622.6	0719.3	I	S	2	190	270X	
	0000	0933	HIRA	0816.0	0816.5	III	B	1	300	450	
			SVTO	0856.0	0856.0	III		1	25	38	
	2040	2400	CULG								
	1934	2400	HIRA	2126.0	2126.5	III	B	1	80	210	
			HIRA	2128.5	2129.0	III	B	1	80	210	
10	0000	0725	CULG	0141.0	0302.0	CONT		1	35	150	
			CULG	0359.0	0527.0	CONT		1	35	150	
	0000	0934	HIRA	0429.0	0429.5	III	B	1	200	320	
			HIRA	0446.0	0446.5	III	B	2	90	500	
			LEAR	0449.0	0936.0	CONT		1	45	175	
			SVTO	0500.0	1320.0	CONT		1	32U	82U	
	0600	1200	IZMI	0721.7	0722.6	III	GG	2	150	270X	
			HIRA	0722.0	0722.5	III	B	1	90	330	
			IZMI	0934.2	0939.2	III	G	1	45	100	
			SVTO	0940.0	0941.0	III		1	113U	164U	
			IZMI	0940.7	0941.3	III	GG,C	2	100	270X	
			IZMI	0944.8	0944.8	III	B	2	150	270	
			IZMI	1026.9	1200.00	III	N	1	45	95	
			IZMI	1122.0U	1200.00	I	S	2	160	270X	
			IZMI	1147.8	1148.1	III	G	2	175	270	
			SVTO	1242.0	1242.0	III		1	25U	54U	
	0436	1719	ONDR	1454.3	1457.0	DCIM		1	800X	4500X	
			HOLL	1456.0	1518.0	II		1	28	120	ESS 0745
			SVTO	1458.0	1517.0	II		1	36	82	ESS 0526
			SGMR	1504.0	1507.0	II		1	38	50	ESS 0650
			SGMR	1530.0	1830.0	CONT		1	30	60	
			HOLL	1557.0	1558.0	III		1	25	40	
			HOLL	1612.0	1616.0	III		1	25	52	
	1933	2400	HIRA	2021.0	2022.5	III	G	1	25X	200	
			HOLL	2317.0	2317.0	III		1	25	88	
	2040	2400	CULG	2317.0	2317.0	III	B	1	30	130	
			HOLL	2330.0	2335.0	III		1	25	71	
			CULG	2355.0	2355.0	III	B	1	40	100	
11			HOLL	0006.0	0006.0	III		1	25	92	
	0000	0725	CULG	0007.0	0007.0	III	B	1	28	110	
			CULG	0100.0	0116.0	III	N	1	30	100	
			HOLL	0107.0	0109.0	III		1	25	87	
			CULG	0151.0	0151.0	III	B	1	30	100	
			CULG	0349.0	0349.0	III	B	1	50	180	
	0000	0934	HIRA	0349.0	0349.5	III	B	2	25X	400	
	0558	1200	IZMI	0558.0E	0755.0U	I	S,C	2	45	270X	
			IZMI	0613.1	0614.4	III	G,FS	1	45	95	
			LEAR	0626.0	0744.0	CONT		1	25	180	
			IZMI	0626.1	0634.6	III	GG	2	45	100	
			CULG	0628.0	0720.00	III	N	1	30	170	
			IZMI	0638.9	0722.0U	III	S	2	30	190	
			SVTO	0642.0	0744.0	CONT		1	25U	180U	
	0435	1720	ONDR	0705.5	0717.4	DCIM	GG	3	800X	1827	
			IZMI	0812.2	0812.3	III	B	1	45	95	
			IZMI	0818.7	0818.8	III	B	1	45	95	
			IZMI	0834.1	0834.2	III	B	1	45	95	
			SVTO	0837.0	0838.0	III		1	25	82	
			IZMI	0837.9	0838.1	III	G	2	40	95	
			IZMI	0910.0U	1200.00	I	N	1	200	270	
			IZMI	0920.5	0921.4	III	G,C	2	25	250	
			SVTO	0921.0	0924.0	III		1	25U	180U	
			IZMI	0924.0	0924.2	III	G	2	45	95	
			IZMI	1031.8	1031.9	III	G	2	130	215	
			IZMI	1051.5	1051.7	III	G	1	45	90	
			HOLL	1350.0	0133.0	III	N	1	25	180	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
11			SGMR	1350.0	1357.0	III		1	30	80	
			SVTO	1350.0	1357.0	III		2	25	180	
			SVTO	1416.0	1731.0	III	N	2	25	180	
			SGMR	1420.0	1913.0	III	N	2	30	80	
			PALE	1646.0	2242.0	III	N	1	25	180	
			SGMR	2030.0	2031.0	III		1	30	60	
			HIRA	2031.0	2031.5	III	B	1	25X	210	
			HIRA	2047.0	2047.5	III	B	1	25X	210	
			CULG	2047.0	2341.0	III	N	1	28	180	
			HIRA	2103.5	2104.0	III	B	2	50	370	
			HIRA	2109.0	2109.5	III	B	1	25X	200	
			LEAR	2332.0	2340.0	III		1	25	147	
			PALE	2332.0	2340.0	III		1	25U	87U	
			HOLL	2355.0	2355.0	III		1	25	88	
12	0000	0715	LEAR	0116.0	0905.0	CONT		1	25	180	
			CULG	0131.0	0208.0	III	N	1	35	170	
			PALE	0150.0	0338.0	III	N	2	25	180	
			CULG	0226.0	0226.0	III	B	3	20	350	
			LEAR	0226.0	0226.0	III		3	25	180	
	0000	0935	HIRA	0226.5	0227.0	III	B	3	25X	500	
			CULG	0229.0	0715.00	III	S,C	1	30	160	
			LEAR	0446.0	0450.0	III		2	25	150	
			SVTO	0447.0	0455.0	III		1	25	132	
			HIRA	0447.5	0449.0	III	G	1	25X	160	
	0601	1200	HIRA	0455.0	0456.0	III	B	1	25X	140	
			SVTO	0524.0	0849.0	III	N	2	25	180	
			HIRA	0529.0	0529.5	III	B	1	25X	120	
			CULG	0535.0	0535.0	III	B	1	25	140	
			HIRA	0535.0	0535.5	III	B	2	25X	200	
			LEAR	0535.0	0535.0	III		2	25	164	
			SVTO	0552.0	0905.0	CONT		1	25U	121U	
			IZMI	0601.0E	1200.00	I	S,C	2	45	270X	
			IZMI	0647.2	0647.4	III	G	2	110	270X	
			IZMI	0652.7	0652.9	III	B	2	25X	150	
			IZMI	0659.0U	1143.0	III	N	1	45	95	
			IZMI	0731.2	0731.9	III	G	2	35	215	
			IZMI	0733.0	0738.3	III	G	2	45	95	
			HIRA	0734.5	0744.0	III	B	1	50	200	
			LEAR	0740.0	0745.0	III		2	25	180	
			IZMI	0740.2	0744.8	III	GG	2	25X	240	
			IZMI	0844.1	0844.2	III	B,C	2	45	145	
			IZMI	0849.3	0849.4	III	B,C	2	40	270X	
			IZMI	0907.0	0907.1	III	G	2	210	270X	
			SVTO	0924.0	0927.0	III		1	25	56	
			IZMI	0924.5	0929.2	III	GG	2	25X	95	
			IZMI	0940.9	0941.3	III	G	2	75	270X	
			IZMI	1018.6	1018.8	III	G	2	25	95	
			IZMI	1042.0	1042.3	III	G	2	25X	95	
			SVTO	1042.0	1512.0	III	N	2	25	180	
			IZMI	1045.7	1046.0	III	G	2	25	95	
			IZMI	1052.5	1052.9	III	G,FS	2	25X	260	
			IZMI	1059.7	1106.8	III	GG,FS	2	40	95	
			IZMI	1103.7	1103.8	III	G	2	120	270X	
			IZMI	1104.5	1105.5	III	GG	2	25X	270X	
			SGMR	1105.0	1105.0	III		1	30	80	
			IZMI	1111.0	1112.8	III	GG,FS	2	25X	270X	
			SGMR	1111.0	1111.0	III		1	30	80	
			IZMI	1111.4	1112.0	V		2	25X	30	
	0433	1721	ONDR	1208.2	1208.3	DCIM	G	2	800X	2000X	
			ONDR	1208.2	1208.3	DCIM	G	2	2000X	4500X	
			SGMR	1240.0	1244.0	III		2	30	80	
			SVTO	1243.0	1244.0	III		2	25	180	
			HOLL	1244.0	1245.0	III		1	25	126	
			HOLL	1312.0	2315.0	CONT		1	64	87	
			SVTO	1312.0	1407.0	CONT		1	25U	82U	
			HOLL	1355.0	1356.0	III		1	25	137	
			SVTO	1355.0	1356.0	III		1	25	134	
			HOLL	1634.0	1637.0	III		1	25	128	

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OBSERVATION			Sta.	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
12			SGMR	1634.0	1635.0	III		1	30	45	
			SVTO	1634.0	1635.0	III		1	25	141	
			HOLL	1715.0	1724.0	V		2	25	180	
			SGMR	1715.0	1717.0	V		2	30	80	
			SVTO	1715.0	1720.0	V		2	25	180	
			SGMR	1718.0	1723.0	III		1	30	80	
			HOLL	1749.0	1749.0	III		1	25	55	
			SGMR	1749.0	1749.0	III		1	30	50	
			SGMR	1753.0	1753.0	III		1	30	50	
	2045	2400	CULG	2045.0E	2235.0	CONT		1	40	110	
			CULG	2305.0	2305.0	III	G	1	45	130	
			HOLL	2305.0	2305.0	III		1	25	84	
			CULG	2327.0	2329.0	III	G	3	18X	650	
			HOLL	2327.0	2330.0	III		2	25	180	
			LEAR	2327.0	2329.0	V		3	25	180	
			PALE	2327.0	2329.0	V		3	25	180	
			SGMR	2327.0	2329.0	III		1	30	75	
	1931	2400	HIRA	2327.0	2330.0	III	B	3	25X	500	
			CULG	2332.0	2336.0	III	G	1	30	180	
			HOLL	2332.0	2336.0	III		1	25	118	
			LEAR	2332.0	2337.0	III		1	25	180	
			PALE	2333.0	2335.0	III		1	25	180	
			HIRA	2333.5	2336.0	III	G	2	25X	120	
			CULG	2340.0	2345.0	II	FN,H	1	23	90	
			CULG	2340.0	2348.0	II	SH,H	2	40	180	ESS 950
			CULG	2340.0	2400.0D	IV	FS	1	40	260	
			HOLL	2340.0	2345.0	III		1	25	130	
			LEAR	2340.0	0137.0	IV		1	25	180	
			HIRA	2341.0	0013.0	IV		2	60	270	
			HIRA	2343.0	2344.0	III	B	3	25X	240	
			PALE	2347.0	0108.0	CONT		1	25	180	
13	0000	0715	CULG	0000.0E	0056.0	IV	FS	1	40	260	
	0000	0936	HIRA	0145.5	0146.0	III	B	1	100	230	
			CULG	0146.0	0146.0	III	B	1	60	180	
			CULG	0302.0	0305.0	II	FN	1	75	520	SWF
			CULG	0302.0	0305.0	II	SH	1	140	750	ESS 1200
			HIRA	0302.0	0306.0	II		2	90	530	
			HIRA	0302.0	0306.0	II		2	130	1100	
			LEAR	0303.0	0305.0	II		1	76	180	ESS 0726
			PALE	0303.0	0308.0	II		1	34	180	ESS 0700
			HIRA	0306.0	0310.0	III	G	2	100	600	
			LEAR	0306.0	0308.0	III		1	104	180	
			CULG	0307.0	0308.0	III	G	1	100	480	
			CULG	0310.0	0437.0	IV	FS	1	30U	200	
			LEAR	0310.0	0455.0	IV		1	25	180	
			HIRA	0315.0	0345.0	IV		2	90	680	
	0432	1723	ONDR								
			CULG	0443.0	0445.0	III	G	1	30	90	
			LEAR	0443.0	0450.0	III		1	25	144	
			SVTO	0443.0	0449.0	III		1	25	146	
			HIRA	0443.5	0444.0	III	B	1	25X	110	
			HIRA	0447.5	0450.0	III	B	2	25X	160	
			CULG	0450.0	0450.0	III	B	1	20	130	
			SVTO	0531.0	0543.0	III	N	1	25	180	
			CULG	0534.0	0543.0	III	G	1	20	180	
			LEAR	0534.0	0540.0	III		1	25	180	
			HIRA	0534.5	0539.0	III	G	1	40	310	
	0600	1200	IZMI	0600.0E	1200.0D	I	S	1	160	270X	
			IZMI	0715.7	0717.8	III	B	1	45	95	
			IZMI	0820.5	0820.5	III	B	1	50	70	
			HIRA	0825.0	0826.0	III	B	3	40	210	
			IZMI	0825.0	0825.8	III	GG	2	25X	270X	
			LEAR	0825.0	0825.0	III		2	25	180	
			SVTO	0825.0	0825.0	III		2	25	180	
			IZMI	0825.5	0825.8	V	G	2	45	110	
			IZMI	1042.5	1043.8	III	G	1	45	70	
			PALE	1915.0	1922.0	III		1	25	55	
			HOLL	1916.0	2112.0	III	N	1	25	141	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
13			SGMR	1917.0	1925.0	III		1	30	60	
	1930	2400	HIRA								
	2045	2400	CULG	2045.0E	2224.0	III	S	1	40U	150	
			SGMR	2327.0	2329.0	III		1	30	75	
			PALE	2340.0	2347.0	III		2	25	180	
			HOLL	2344.0	0110.0	CONT		1	25	180	
14			HOLL	0107.0	0109.0	III		1	25	180	
			LEAR	0336.0	0340.0	III		1	53	144	
	0000	0715	CULG	0336.0	0340.0	III	G	1	50U	150	
	0000	0937	HIRA	0336.0	0338.5	III	G	1	50	150	
	0550	1200	IZMI	0550.0E	0750.0U	I	N	2	130	270X	
			IZMI	0551.0U	0750.0	III	N	1	45	95	
			IZMI	0843.8	0844.0	III	B	2	25X	95	
			IZMI	1012.7	1012.8	III	B	2	45	160	
			IZMI	1133.8	1134.2	III	G,C	2	25X	270X	
			SVTO	1134.0	1134.0	III		1	25	151	
			SVTO	1206.0	1226.0	III		2	25	81	
			SGMR	1213.0	1213.0	III		1	30	55	
	0431	1724	ONDR	1215.2	1217.0	DCIM	GG,SP	2	800X	1212	
			HOLL	1332.0	1334.0	III		2	25	176	
			SGMR	1332.0	1350.0	III	N	2	30	80	
			SVTO	1332.0	1338.0	V		3	25	180	
			HOLL	1336.0	1521.0	III	N	2	25	141	
			SVTO	1349.0	1350.0	III		2	25	83	
			SGMR	1416.0	1439.0	III	N	2	30	80	
			SVTO	1416.0	1416.0	III		1	25	83	
			SVTO	1433.0	1439.0	III		3	25	180	
			SVTO	1611.0	1611.0	III		1	25	81	
			HOLL	1631.0	1634.0	III		2	25	142	
			PALE	1631.0	1632.0	III		1	25	145	
			SGMR	1631.0	1634.0	V		3	30	80	
			SVTO	1631.0	1632.0	III		2	25	139	
			HOLL	1906.0	1907.0	III		1	25	50	
			HOLL	2144.0	2150.0	III		1	25	180	
			PALE	2145.0	2150.0	III		1	25	180	
	1929	2400	HIRA	2145.0	2145.5	III	B	1	25X	110	
	2045	2400	CULG	2145.0	2339.0	III	N	1	25	180	
			HIRA	2148.0	2149.0	III	B	1	25X	210	
			SGMR	2148.0	2148.0	III		1	30	70	
			HIRA	2150.0	2150.5	III	B	1	25X	210	
			HIRA	2207.5	2208.5	III	G	1	120	300	
			HOLL	2219.0	2342.0	III	N	1	25	170	
			PALE	2219.0	2220.0	III		1	25	86	
			SGMR	2219.0	2220.0	III		1	30	80	
			HIRA	2219.5	2220.0	III	B	2	25X	230	
			SGMR	2231.0	2233.0	III		2	30	80	
			PALE	2244.0	2253.0	III		1	25	85	
			HIRA	2248.0	2248.5	III	B	2	25X	300	
			HIRA	2248.5	2249.0	III	B	2	25X	300	
			HIRA	2252.5	2253.0	III	B	2	25X	190	
			HIRA	2312.0	2312.5	III	B	2	25X	110	
			LEAR	2312.0	2312.0	III		1	28	103	
			PALE	2312.0	2312.0	III		1	25U	87U	
15			PALE	0120.0	0120.0	III		1	25	150	
			HOLL	0121.0	0121.0	III		1	25	123	
			LEAR	0121.0	0121.0	III		1	25	180	
	0000	0715	CULG	0121.0	0121.0	III	B	2	30	180	
	0000	0938	HIRA	0121.0	0121.5	III	B	2	25X	250	
			CULG	0257.0	0259.0	UNCLF		1	400	750	
			CULG	0300.0	0313.0	II	FN	3	25	150	ESS 1000
			CULG	0300.0	0315.0	II	SH	1	50	300	SWF
			HIRA	0300.0	0304.5	II		2	50	130	
			HIRA	0300.0	0304.5	II		2	90	300	
			LEAR	0300.0	0302.0	II		2	73	75	ESS 1300
			PALE	0300.0	0303.0	II		2	73	75	ESS 1033
			PALE	0307.0	0313.0	III		1	25U	85U	
			LEAR	0308.0	0313.0	III		1	25	106	

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
15		CULG	0311.0	0348.0	IV		1	50	300	
		HIRA	0311.0	0344.0	IV		1	30	300	
	0430 1725	ONDR								
		CULG	0448.0	0453.0	III	G	2	20	180	
		HIRA	0449.0	0450.0	III	G	2	25X	290	
		LEAR	0449.0	0450.0	III		1	25	180	
		SVTO	0449.0	0458.0	III		2	25	180	
		LEAR	0455.0	0457.0	III		1	25	180	
		HIRA	0455.5	0456.5	III	B	2	25X	700	
		CULG	0456.0	0458.0	III	G	3	20	650	
		HIRA	0457.0	0458.5	III	G	3	25X	390	
		HIRA	0516.0	0516.5	III	B	1	140	240	
	0558 1200	IZMI	0603.6	0604.0	III	G	2	46	120	
		IZMI	0604.8	0605.7	III	GG	2	25X	270X	
		CULG	0605.0	0609.0	III	G	2	20	300	
		HIRA	0605.0	0605.5	III	B	1	25X	260	
		LEAR	0605.0	0608.0	III		1	25	180	
		SVTO	0605.0	0608.0	III		1	25	180	
		HIRA	0607.5	0608.5	III	B	1	30	300	
		IZMI	0607.5	0608.4	III	GG	2	25X	270X	
		IZMI	0648.6	0649.0	III	G	1	75	95	
		SVTO	0736.0	0739.0	III		1	25	180	
		IZMI	0736.4	0736.7	III	B	2	40	65	
		HIRA	0738.5	0739.0	III	B	1	80	110	
		IZMI	0738.7	0739.2	III	GG	2	25X	125	
		IZMI	0827.3	0827.5	III	G	2	130	175	
		IZMI	0832.7	0833.2	III	G,FS	1	45	90	
		IZMI	0834.8	0836.7	III	GG	2	40	90	
		IZMI	0843.6	0847.1	III	GG	1	40	90	
		IZMI	0913.0	0913.8	III	B	1	45	70	
		SVTO	0919.0	0920.0	III		1	25	56	
		IZMI	0919.1	0920.3	III	GG	2	25X	95	
		IZMI	0921.7	0923.1	III	GG	2	45	100	
		SVTO	1023.0	1024.0	III		1	25	64	
		IZMI	1023.6	1023.9	III	B	1	45	95	
		IZMI	1121.5	1121.6	III	B	2	45	100	
		SVTO	1237.0	1237.0	III		1	25	82	
		SVTO	1332.0	1333.0	III		1	25	54	
		SVTO	1635.0	1635.0	III		1	25	63	
		HOLL	1914.0	1914.0	III		1	25	66	
		PALE	1914.0	1914.0	III		1	25	63	
	1929 2400	HIRA	2120.5	2121.0	III	B	1	25X	240	
	2045 2400	CULG	2121.0	2121.0	III	B	1	50U	180	
16	0000 0710	CULG	0255.0	0404.0	III	S,C	1	40U	160	
	0429 1726	ONDR								
		CULG	0551.0	0710.0D	I	S	1	70	150	
	0600 1200	IZMI	0600.0E	1100.0U	I	N	1	70	270	
		CULG	0618.0	0618.0	III	B	1	30	170	
		IZMI	0618.1	0618.6	III	G	2	45	150	
	0000 0939	HIRA	0639.0	0639.5	III	B	1	500	1100	
		CULG	0647.0	0647.0	III	B	1	30	170	
		IZMI	0647.3	0647.8	III	G	2	50	237	
		HIRA	0740.0	0740.5	III	B	1	200	280	
		IZMI	0740.0	0740.4	III	G	2	250	270X	
		SVTO	0818.0	0819.0	III		1	25	66	
		HIRA	0818.5	0819.0	III	B	1	30	80	
		IZMI	0818.6U	0819.0	III	G	2	25X	75	
		IZMI	0826.2	0827.0	III	G	2	45	168	
		IZMI	0914.2	0914.7	III	G	1	70	90	
		SVTO	0915.0	0915.0	III		2	25	147	
		IZMI	0915.3	0915.6	III	G,C	2	25X	145	
	0559 1200	IZMI	1026.2	1026.4	III	B	1	25X	60	
		HOLL	1429.0	1430.0	III		1	25	89	
		SGMR	1429.0	1430.0	III		1	30	60	
		SVTO	1429.0	1430.0	III		1	25	180	
		HOLL	1537.0	1538.0	III		1	32	86	
		SVTO	1537.0	1537.0	III		1	25	81	
		HOLL	1540.0	1548.0	II		1	25	139	ESS 0448

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Start	End				Spectral	Event		Lower	Upper	
Day (UT)	(UT)		(UT)	(UT)	Class	Remarks		(MHz)	(MHz)	
16		SVTO	1540.0	1600.0	II		1	29	153	ESS 0675
		HOLL	1548.0	1600.0	II		1	25	88	ESS 0448
		SGMR	1552.0	1600.0	III		1	30	50	
		HOLL	1555.0	1600.0	II		1	25	139	ESS 0448
		HOLL	1603.0	1603.0	III		1	25	73	
		HOLL	1850.0	1851.0	III		1	25	57	
	2050 2400	CULG	2117.0	2142.0	III	N	1	25	160	
		HOLL	2118.0	2120.0	III		1	25	135	
		PALE	2119.0	2120.0	III		1	25	94	
	1928 2400	HIRA	2119.0	2120.0	III	B	1	25X	130	
		HOLL	2128.0	2129.0	III		1	25	97	
		PALE	2128.0	2200.0	III	N	1	25	96	
		HIRA	2128.5	2129.0	III	B	1	25X	120	
		CULG	2238.0	2245.0	III	G	2	20	180	
		HOLL	2239.0	2244.0	III		2	25	143	
		PALE	2239.0	2244.0	III		2	25	180	
		HIRA	2240.0	2245.0	III	G	3	25X	180	
		SGMR	2240.0	2242.0	III		2	30	70	
		CULG	2256.0	2257.0	III	G	1	30	80	
17		HOLL	0100.0	0107.0	III		1	25	147	
		LEAR	0100.0	0107.0	III		1	25	140	
		PALE	0100.0	0107.0	III		1	25	120	
	0000 0710	CULG	0100.0	0102.0	III	G	2	28	90	
		CULG	0104.0	0107.0	III	G	2	35	140	
	0000 0939	HIRA	0104.0	0107.0	III	G	2	40	120	
		HIRA	0157.0	0157.5	III	B	2	25X	90	
		LEAR	0157.0	0346.0	III	N	1	25	116	
		CULG	0158.0	0221.0	III	N	1	30	150	
		HIRA	0300.5	0301.0	III	B	1	25X	110	
		CULG	0301.0	0347.0	III	N	1	25	90	
		PALE	0341.0	0348.0	III		1	25	55	
		HIRA	0346.0	0346.5	III	B	1	30	70	
	0427 1727	ONDR								
		CULG	0447.0	0450.0	III	G	2	18	90	
		HIRA	0447.0	0449.5	III	G	2	25X	160	
		LEAR	0447.0	0449.0	III		2	25	147	
		SVTO	0447.0	0449.0	III		1	25U	84U	
		CULG	0456.0	0457.0	III	G	1	20	90	
		SVTO	0548.0	0552.0	III		1	25U	82U	
		HIRA	0548.5	0549.0	III	B	1	50	130	
		HIRA	0552.5	0553.0	III	B	1	25X	110	
		IZMI	0559.0E	1200.0D	I	N	1	130	270X	
		IZMI	0605.6	0606.1	III	G	1	45	61	
		IZMI	0638.1	0638.7	III	G	1	40	90	
		SVTO	0651.0	0729.0	III	N	1	25U	84U	
		CULG	0657.0	0658.0	III	G	1	30	90	
		HIRA	0657.0	0658.0	III	B	2	50	100	
		LEAR	0657.0	0658.0	III		1	25	106	
		IZMI	0657.2	0658.2	III	GG	2	40	100	
		IZMI	0705.3	0707.5	III	GG	2	45	145	
		IZMI	0729.4	0730.0	III	G	2	45	95	
		IZMI	0736.2	0736.9	III	G	1	45	70	
		LEAR	0801.0	0803.0	III		2	25	130	
		IZMI	0801.8	0805.3	III	GG,FS	2	25X	210	
		HIRA	0802.0	0804.0	III	G	2	30	130	
		SVTO	0802.0	0804.0	III		2	25U	84U	
		LEAR	0829.0	0830.0	III		1	25	120	
		HIRA	0830.0	0830.5	III	B	2	40	110	
		IZMI	0830.0	0831.0	III	G	2	45	105	
		SVTO	0830.0	0830.0	III		1	25U	82U	
		IZMI	0856.0	0856.7	III	G	2	45	90	
		SVTO	0856.0	1145.0	III	N	2	25	148	
		IZMI	0857.6	0858.7	III	G	2	45	90	
		HIRA	0858.0	0858.5	III	B	1	40	180	
		HIRA	0900.5	0901.0	III	B	1	30	120	
		IZMI	0900.7	0900.7	III	B	2	45	100	
		IZMI	0901.9	0902.7	III	G	2	45	51	
		IZMI	0906.1	0906.2	III	B	1	45	60	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
17			IZMI	0913.2	0913.4	III	B	1	45	95	
			IZMI	0917.0	0918.2	III	GG	2	45	90	
			IZMI	0920.1	0921.0	III	G	1	45	75	
			IZMI	0943.3	0944.0	III	G	1	45	95	
			IZMI	0945.3	0954.6	III	GG	2	25X	105	
			IZMI	1040.3	1040.8	III	G	1	45	150	
			IZMI	1055.0	1057.0	III	GG	2	40	100	
			IZMI	1057.1	1100.9	III	GG,FS	2	25X	160	
			HOLL	1233.0	0150.0	III	N	2	25	92	
			SVTO	1233.0	1737.0	III	N	2	25	162	
			SGMR	1242.0	1243.0	III		1	30	55	
			SGMR	1317.0	1531.0	III	N	2	30	70	
			HOLL	1440.0	1442.0	III		1	25	87	
			SGMR	1626.0	1635.0	III		1	30	60	
			PALE	1928.0	2159.0	III	N	3	25	150	
			SGMR	2008.0	2009.0	III		1	30	60	
	1927	2400	HIRA	2008.0	2011.5	III	G	1	25X	200	
			HIRA	2046.5	2047.5	III	B	1	200	400	
			HIRA	2119.0	2120.0	III	B	2	30	150	
			SGMR	2119.0	2159.0	III	N	2	30	80	
	2050	2400	CULG	2119.0	2121.0	III	G	2	25	140	
			CULG	2131.0	2155.0	III	N	1	40	100	
			CULG	2137.0	2142.0	III	GG	2	23	140	
			HIRA	2137.0	2142.5	III	G	2	25X	170	
			HIRA	2158.5	2159.0	III	B	3	25X	180	
			CULG	2159.0	2159.0	III	B	3	23	140	
			CULG	2315.0	2325.0	III	GG	2	35	150	
			LEAR	2315.0	2339.0	III	N	1	25	180	
			PALE	2315.0	2343.0	III	N	1	25	150	
			HIRA	2318.0	2322.5	III	G	1	25X	130	
			CULG	2329.0	2334.0	III	G	2	35	180	
			HIRA	2329.0	2332.0	III	G	2	25X	290	
18			LEAR	0017.0	0017.0	III		1	47	160	
	0000	0710	CULG	0017.0	0017.0	III	B	1	40	160	
	0000	0940	HIRA	0017.0	0017.5	III	B	1	30	190	
			CULG	0250.0	0252.0	III	G	1	28	90	
			LEAR	0250.0	0251.0	III		1	25	110	
			PALE	0250.0	0253.0	III		1	25	86	
			HIRA	0250.5	0251.0	III	B	1	25X	90	
	0426	1729	ONDR								
			HIRA	0446.0	0446.5	III	B	1	130	210	
			CULG	0545.0	0545.0	III	B	1	28	110	
	0551	1200	IZMI	0551.0E	1200.0D	I	N	1	180	270X	
			IZMI	0607.2	0607.4	III	B	1	45	70	
			IZMI	0608.0U	1200.0U	III	N	1	45	95	
			IZMI	0700.9	0701.2	III	G	2	40	100	
			CULG	0701.0	0703.0	III	G	1	30	80	
			IZMI	0703.1	0703.4	III	G,FS	1	45	90	
			IZMI	0759.3	0759.4	III	G	1	45	90	
			IZMI	0847.6	0850.7	III	GG	2	45	85	
			IZMI	0900.2	0900.3	III	G,FS	2	45	90	
			SVTO	1126.0	1128.0	III		1	25	139	
			IZMI	1126.7	1128.7	III	GG,FS	2	25X	150	
			SGMR	1127.0	1127.0	III		1	30	60	
			IZMI	1157.1	1157.2	III	B	2	45	100	
			SGMR	1236.0	1237.0	III		1	30	80	
			SVTO	1236.0	1240.0	III		1	25	170	
			HOLL	1318.0	1324.0	III		1	25	180	
			SVTO	1318.0	1324.0	III		1	25	153	
			SGMR	1321.0	1322.0	III		1	30	80	
			SVTO	1342.0	1737.0	III	N	1	25	156	
			PALE	1853.0	0119.0	III	N	1	25	85	
			HOLL	1902.0	0107.0	III	N	1	25	180	
			SGMR	1918.0	1919.0	III		2	30	80	
	1926	2400	HIRA	2016.5	2018.5	III	G	1	25X	260	
	2050	2400	CULG	2050.0E	2400.0D	III	N	1	40U	90	
19	0000	0705	CULG	0000.0E	0705.0D	III	N	1	30	90	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
19			LEAR	0017.0	0018.0	III		1	25	104	
	0000	0941	HIRA	0017.5	0018.5	III	B	1	25X	140	
			CULG	0018.0	0018.0	III	G	1	25	130	
			HIRA	0105.0	0105.5	III	B	1	25X	70	
			LEAR	0105.0	0105.0	III		1	25	48	
	0425	1730	ONDR								
			LEAR	0742.0	0743.0	III		2	25	180	
			SVTO	0742.0	0744.0	III		2	25	180	
			HIRA	0743.0	0743.5	III	B	3	25X	270	
			LEAR	0855.0	0859.0	III		1	25	180	
			SVTO	0855.0	0859.0	III		1	25	180	
			HIRA	0855.5	0857.0	III	G	2	50	180	
			SVTO	0918.0	1017.0	III		1	25	154	
			SVTO	0918.0	1017.0	III	N	1	25	154	
			SVTO	1114.0	1334.0	III	N	1	25	83	
			SGMR	1118.0	1121.0	III		1	30	65	
			HOLL	1436.0	1437.0	III		2	25	180	
			SGMR	1436.0	1438.0	III		3	30	80	
			SVTO	1436.0	1437.0	III		3	25	180	
			HOLL	1441.0	1450.0	II		1	25	89	ESS 0473
			SVTO	1444.0	1453.0	II		1	36	84	ESS 0459
	1926	2400	HIRA								
	2055	2400	CULG	2317.0	2322.0	III	G	1	40	80	
20			LEAR	0218.0	0218.0	III		1	30	131	
	0000	0705	CULG	0218.0	0222.0	III	G	1	45U	140	
	0000	0942	HIRA	0218.5	0219.0	III	B	1	25X	120	
			LEAR	0251.0	0251.0	III		1	26	43	
	0424	1731	ONDR	0601.3	0605.2	DCIM	G	2	800X	2000X	
			HIRA	0601.5	0603.5	III	B	3	50	450	
			CULG	0602.0	0604.0	III	G	3	25	300	
			LEAR	0602.0	0604.0	III		1	25	180	
			CULG	0604.0	0606.0	II	SH	2	65	180	
			CULG	0604.0	0607.0	II	FN	3	28	120	SWF ESS 2100
			HIRA	0604.0	0616.5	II		3	25X	340	
			LEAR	0604.0	0618.0	II		1	25U	180U	ESS 1200
			SVTO	0604.0	0619.0	II		3	25U	180U	ESS 2424
			CULG	0605.0	0612.0	II	FN	3	23	170	ESS 700
			CULG	0605.0	0624.0	II	SH	3	25	340	
			CULG	0613.0	0655.0	CONT		1	23	180	
			SVTO	0619.0	0717.0	III	N	1	25	81	
			LEAR	0620.0	0625.0	III		1	25	109	
			LEAR	0915.0	0920.0	III		1	25	180	
			SVTO	0915.0	0920.0	III		1	25	162	
			HIRA	0920.0	0920.5	III	B	2	35	330	
			SVTO	0928.0	0931.0	II		1	25	44	ESS 1088
			SGMR	1137.0	1139.0	III		1	30	80	
			SVTO	1137.0	1139.0	III		2	25	170	
			HOLL	1904.0	1917.0	III	N	1	25	84	
			PALE	1904.0	1905.0	III		1	25U	73U	
			SGMR	1904.0	1905.0	III		1	30	80	
			HOLL	2003.0	2004.0	III		1	25	84	
			PALE	2003.0	2004.0	III		1	25U	70U	
			SGMR	2003.0	2004.0	III		1	30	60	
	1925	2400	HIRA	2003.5	2004.0	III	B	1	25X	80	
	2055	2400	CULG	2055.0E	2400.0D	I	S	1	110	170	
			HOLL	2133.0	2134.0	III		1	25	124	
			PALE	2133.0	2133.0	III		1	25U	53U	
			HIRA	2133.5	2134.0	III	B	1	50	120	
			CULG	2134.0	2134.0	III	B	1	50	110	
			SGMR	2143.0	2143.0	III		1	30	80	
			HOLL	2231.0	2239.0	III		1	25	84	
			CULG	2235.0	2238.0	III	G	1	40U	90	
			CULG	2305.0	2345.0	III	N	1	40U	140	
21	0000	0701	CULG	0000.0E	0250.0	I	S	1	110	170	
			CULG	0152.0	0348.0	III	N	1	40	160	
			CULG	0313.0	0322.0	III	GG	3	18X	700	
	0000	0943	HIRA	0313.0	0324.0	III	G	3	25X	2000	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
21	0423	1732	ONDR								
			SVTO	0618.0	0917.0	III	N	1	25U	56U	
			CULG	0648.0	0648.0	III	B	1	30	120	
			HOLL	1430.0	0130.0	III	N	1	25	180	
	1924	2400	SVTO	1439.0	1610.0	III	N	1	25U	180U	
			HIRA	1941.0	1941.5	III	B	1	70	200	
			HIRA	2014.0	2014.5	III	B	1	25X	120	
			PALE	2014.0	2014.0	III		1	25	63	
			PALE	2057.0	2058.0	III		1	25	60	
			HIRA	2057.5	2058.0	III	B	1	30	180	
	2055	2400	HIRA	2218.0	2218.5	III	B	1	40	90	
			CULG	2218.0	2218.0	III	B	1	40	90	
			CULG	2224.0	2232.0	II	SH	1	50	150	ESS 550
			HIRA	2224.0	2231.5	II		1	50	120	
22	0000	0943	HIRA	0228.5	0229.0	III	B	1	25X	210	
		0705	CULG	0229.0	0229.0	III	B	1	25	90	
			LEAR	0257.0	0257.0	III		1	64	180	
			HIRA	0257.5	0258.0	III	B	3	60	420	
			CULG	0258.0	0303.0	III	G	1	30	280	
			LEAR	0416.0	0418.0	III		2	25	135	
			PALE	0416.0	0417.0	III		1	25	60	
			HIRA	0416.5	0417.0	III	B	1	25X	150	
			SVTO	0417.0	0417.0	III		1	25	48	
	0422	1733	ONDR								
			CULG	0522.0	0522.0	III	B	1	30	90	
			CULG	0530.0	0530.0	III	G	1	30	90	
			CULG	0554.0	0554.0	III	B	1	30	90	
			CULG	0626.0	0627.0	III	G	1	30	130	
			HIRA	0626.5	0627.0	III	B	1	50	190	
			HIRA	0633.5	0635.0	III	G	1	50	200	
			CULG	0634.0	0635.0	III	G	1	30	160	
			HIRA	0709.0	0709.5	III	B	1	30	100	
			LEAR	0709.0	0709.0	III		1	25	130	
			SVTO	0709.0	0709.0	III		1	28U	82U	
			SVTO	0736.0	1100.0	III	N	1	25U	81U	
			HIRA	0805.0	0806.0	III	G	1	25X	180	
			LEAR	0805.0	0806.0	III		1	25	97	
			HIRA	0854.0	0854.5	III	B	2	40	200	
			LEAR	0854.0	0854.0	III		1	25	141	
			SVTO	1339.0	1741.0	III	N	1	25	160	
			HOLL	1403.0	1407.0	III		1	25	155	
			SGMR	1403.0	1511.0	III	N	1	30	70	
			HOLL	1425.0	1431.0	III		1	25	59	
			HOLL	1425.0	1728.0	III	N	1	25	92	
			HOLL	1747.0	1747.0	III		1	25	99	
			PALE	1747.0	1831.0	III	N	2	25	180	
			HOLL	1754.0	1800.0	III		2	25	176	
			SGMR	1754.0	1759.0	III		2	30	80	
			HOLL	1817.0	0130.0	III	N	1	25	70	
			PALE	1906.0	0331.0	III	N	1	25	65	
			SGMR	2035.0	2036.0	III		1	30	60	
	1924	2400	HIRA	2035.5	2036.0	III	B	1	25X	220	
			HIRA	2114.0	2114.5	III	B	1	25X	170	
	2100	2400	CULG	2114.0	2114.0	III	B	1	50U	150	
			CULG	2123.0	2124.0	III	G	1	50U	90	
			CULG	2221.0	2222.0	III	G	1	50U	270	
			HIRA	2221.0	2222.0	III	G	2	100	230	
			HOLL	2239.0	2249.0	III		1	25	142	
			CULG	2241.0	2252.0	III	GG	2	25	200	
			HIRA	2241.0	2248.0	III	G	2	25X	300	
23	0000	0944	HIRA								
		0700	CULG	0012.0	0014.0	III	G	1	35	80	
	0421	1734	CULG	0300.0	0334.0	III	N	1	40	150	
			ONDR								
			CULG	0506.0	0700.00	III	N	1	23	90	
			SVTO	0645.0	1741.0	III	N	1	25U	158U	
			LEAR	0848.0	0849.0	III		1	30	148	

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start End (UT) (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
23		SGMR	1159.0	2342.0	III	N	1	30	80	
		HOLL	1227.0	0130.0	III	N	1	25	83	
		PALE	1609.0	0445.0	III	N	1	25	150	
	1923 2400	HIRA								
		CULG	2100.0E	2400.0D	III	S	1	30	160	
	2100 2400	CULG	2100.0E	2400.0D	I	S	1	120	170	
		LEAR	2310.0	0000.0	III	N	1	25	100	
24	0000 0945	HIRA								
		CULG	0000.0E	0700.0D	III	S	1	30	90	
	0000 0700	CULG	0000.0E	0700.0D	I	S	1	100	170	
		SVTO	0347.0	1743.0	CONT		1	25	180	
	0421 1735	ONDR								
		SGMR	1226.0	2014.0	CONT		1	30	60	
		HOLL	1255.0	0156.0	III	N	1	25	180	
		PALE	1700.0	0449.0	III	N	2	25	180	
		SVTO	1712.0	1721.0	II		1	123	160	ESS 0267
		HOLL	1713.0	1717.0	II		1	123	161	ESS 0266
		HIRA	1940.0	2007.0	II		2	25X	200	
		HOLL	1940.0	2010.0	II		2	25	180	ESS 0566
		PALE	1940.0	2004.0	II		3	25	180	ESS 0620
	1922 2400	HIRA	1940.0	1952.0	II		2	25X	90	
		SGMR	1941.0	2008.0	II		1	30	80	ESS 0600
		CULG	2100.0E	2400.0D	III	S	1	25	180	
	2100 2400	CULG	2100.0E	2215.0	I	S	1	100	170	
		CULG	2215.0	2215.0D	I	S	2	55	170	
		HOLL	2239.0	0156.0	CONT		1	25	180	
		PALE	2241.0	0449.0	CONT		2	25	180	
		LEAR	2309.0	0000.0	CONT		2	25	180	
25		CULG	0000.0E	0450.0	III	S	1	20	180	
	0000 0700	CULG	0000.0E	0240.0	I	S	1	40	160	
		CULG	0310.0	0310.0D	I	S,C	2	50	160	
	0420 1736	ONDR								
		CULG	0450.0	0700.0D	III	S,C	3	20	180	
		LEAR	0457.0	0459.0	III		3	25	136	
	0000 0946	HIRA	0457.0	0458.0	III	G	2	25X	110	
		HIRA	0655.0	0656.5	III	B	2	25X	500	
		LEAR	0655.0	0656.0	V		3	25	180	
		SVTO	0655.0	0656.0	III		3	25	172	
		SVTO	0655.0	0656.0	V		3	25	172	
		HIRA	0814.0	0814.5	III	B	2	30	210	
		HOLL	1313.0	0120.0	III	N	1	25	75	
		SGMR	1314.0	1314.0	III		1	30	60	
		SGMR	1616.0	1617.0	III		1	30	55	
		SVTO	1616.0	1617.0	III		1	25	80	
		HOLL	1622.0	0157.0	CONT		1	44U	86U	
		PALE	1848.0	1857.0	III		1	25	50	
		PALE	2059.0	2059.0	III		1	25	47	
	1922 2400	HIRA	2059.0	2059.5	III	B	1	25X	140	
		CULG	2100.0E	2400.0D	III	S	1	50U	180	
	2100 2400	CULG	2100.0E	2400.0D	I	S,C	1	60	160	
		HIRA	2113.0	2113.5	III	B	1	25X	110	
		PALE	2113.0	2113.0	III		1	25U	86U	
		PALE	2205.0	2206.0	III		1	25	60	
		HIRA	2205.5	2206.0	III	B	1	25X	180	
		PALE	2217.0	2244.0	III	N	1	25	80	
		LEAR	2310.0	0930.0	CONT		1	44	180	
26	0000 0947	HIRA								
		CULG	0000.0E	0700.0D	III	S	1	50U	180	
	0000 0700	CULG	0000.0E	0700.0D	I	S,C	1	60	160	
		SVTO	0517.0	0517.0	III		1	36	127	
		SVTO	0953.0	1226.0	CONT		1	28U	155U	
		SVTO	1054.0	1227.0	III	N	1	28U	146U	
		SGMR	1057.0	1057.0	III		1	30	70	
		SVTO	1109.0	1111.0	II		1	75	147	ESS 0428
		SGMR	1141.0	1211.0	III	N	1	30	70	
		ONDR	1207.0	1209.2	DCIM	G	1	800X	2000X	

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MAY 2001

OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
26	0419	1737	ONDR	1207.0	1208.5	DCIM	G	1	2000X	4500X	
			HOLL	1418.0	2129.0	III	N	1	25	131	
			SGMR	1418.0	1419.0	III		1	30	50	
			SVTO	1418.0	1419.0	III		1	25	57	
			SVTO	1434.0	1744.0	CONT		2	25U	180U	
			SGMR	1450.0	1450.0	III		1	30	55	
			SVTO	1450.0	1451.0	III		1	25U	180U	
			HOLL	1502.0	0153.0	CONT		1	44	147	
			SGMR	1515.0	2300.0	CONT		1	30	80	
			PALE	1629.0	0450.0	CONT		1	85U	180U	
			1921 2400								
			HIRA								
			CULG	2100.0E	2400.0D	III	N	1	40U	180	
			2100 2400								
			CULG	2100.0E	2400.0D	I	S	1	100	170	
			LEAR	2310.0	0930.0	CONT		1	64	180	
27			CULG	0000.0E	0700.0D	III	N	1	23	180	
			CULG	0000.0E	0700.0D	I	S	1	60	170	
			0000 0947								
			HIRA	0014.5	0015.0	III	B	1	50	240	
			SVTO	0345.0	1338.0	CONT		1	52	180	
			0418 1738								
			ONDR								
			HIRA	0459.0	0459.5	III	B	1	40	110	
			LEAR	0459.0	0459.0	III		1	25	115	
			SVTO	0459.0	0459.0	III		1	25	120	
			HIRA	0625.0	0625.5	III	B	1	40	80	
			SVTO	0625.0	0625.0	III		1	25U	82U	
			SVTO	1035.0	1035.0	III		1	25	124	
			SVTO	1054.0	1055.0	III		1	25	120	
			HOLL	1249.0	1249.0	III		1	25	142	
			SGMR	1249.0	1250.0	III		1	30	80	
			SVTO	1253.0	1257.0	III		2	25	150	
			HOLL	1440.0	1441.0	III		1	25	106	
			SVTO	1440.0	1441.0	III		1	25U	82U	
			1921 2400								
			2100 2400								
			HIRA								
			CULG								
28			0000 0948								
			0418 1739								
			ONDR								
			LEAR	0549.0	0553.0	III		1	25	150	
			SVTO	0549.0	0553.0	III		1	25	147	
			0000 0700								
			CULG	0550.0	0550.0	III	B	1	20	150	
			CULG	0553.0	0553.0	III	B	1	23	60	
			0559 0655								
			IZMI								
			0704 1200								
			IZMI	0829.1	0929.3	III	G	1	45	65	
			IZMI	0949.0U	1200.0D	I	N	2	195	270X	
			SVTO	1108.0	1109.0	III		1	25	48	
			SVTO	1324.0	1328.0	III		1	112U	156U	
			SVTO	1503.0	1506.0	III		1	25U	82U	
			HOLL	1505.0	1506.0	III		1	25	83	
			HOLL	1538.0	1538.0	III		1	25	80	
			SVTO	1538.0	1538.0	III		1	25	68	
			1920 2400								
			2100 2400								
			HIRA								
			CULG								
29			0000 0043								
			0417 1740								
			0000 0949								
			CULG	0029.0	0029.0	III	B	1	30	180	
			ONDR								
			HIRA	0441.0	0441.5	III	B	1	170	300	
			LEAR	0450.0	0450.0	III		1	46	109	
			SVTO	0450.0	0450.0	III		1	41	82	
			LEAR	0602.0	0604.0	III		1	34	145	
			SVTO	0602.0	0604.0	III		1	32	148	
			HIRA	0602.5	0603.0	III	B	1	40	310	
			0600 1200								
			IZMI	0602.5	0602.8	III	G,C	2	45	260	
			IZMI	0604.3	0605.3	III	G	1	45	100	
			IZMI	0606.0U	1150.0U	I	N	1		270X	
			IZMI	0724.3	0725.8	III	G	2	45	100	
			HIRA	0725.0	0725.5	III	B	1	50	130	
			SVTO	0725.0	0725.0	III		1	25	81	
			IZMI	0828.0	0832.0	III	GG,C	2	25X	190	
			LEAR	0830.0	0831.0	III		2	25	170	

S O L A R R A D I O E M I S S I O N

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MAY 2001

OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start End (UT) (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
29		SVTO	0830.0	0831.0	III		2	25	168	
		HIRA	0830.5	0831.0	III	B	3	25X	230	
		IZMI	0835.0	1143.0	III	N	1	45	95	
		IZMI	0846.1	0846.7	UNCLF		2	50	70	
		IZMI	0853.8	0859.3	III	GG	2	40	95	
		IZMI	0902.2	0904.5	I	GG	2	45	70	
		SVTO	0944.0	0954.0	III		1	25	79	
		IZMI	0944.4	0947.2	III	GG	2	25	100	
		IZMI	0954.1	0954.6	III	GG,C	2	45	95	
		IZMI	1044.8	1046.3	III	G	2	40	95	
		SVTO	1104.0	1226.0	III	N	1	25	82	
		IZMI	1104.3	1105.0	III	G	2	30	95	
		IZMI	1110.2	1110.8	III	G,C	2	30	95	
		IZMI	1120.8	1121.0	III	G,FS	2	30	95	
		SVTO	1306.0	1355.0	III	N	1	25	82	
		HOLL	1320.0	1321.0	III		1	25	65	
		HOLL	1331.0	1332.0	III		1	25	63	
		SGMR	1331.0	1332.0	III		1	30	80	
		HOLL	1541.0	1542.0	III		1	34	137	
		SVTO	1541.0	1541.0	III		1	64U	159U	
		HOLL	1547.0	2012.0	III	N	1	25	75	
		PALE	1731.0	1732.0	III		1	25	180	
		SVTO	1732.0	1732.0	III		2	73	180	
		PALE	2006.0	2007.0	III		1	25	74	
	1920 2400	HIRA	2049.0	2049.5	III	B	1	80	200	
		HIRA	2147.0	2148.0	III	B	2	25X	280	
		HOLL	2147.0	2150.0	III		1	25	175	
		PALE	2147.0	2149.0	III		2	25	180	
		HIRA	2149.0	2150.0	III	B	3	25X	400	
		SGMR	2149.0	2149.0	III		2	30	80	
		HOLL	2300.0	2300.0	III		1	25	70	
		PALE	2300.0	2300.0	III		1	25U	52U	
		HOLL	2314.0	2314.0	III		1	25	55	
		LEAR	2314.0	2316.0	III		1	25	112	
		HOLL	2358.0	0018.0	III		1	25	135	
		HOLL	2358.0	0018.0	III	N	2	25	135	
		LEAR	2358.0	0022.0	III	N	2	25	180	
		PALE	2358.0	0020.0	III	N	2	25	180	
		HIRA	2358.5	2359.0	III	B	2	30	130	
30	0000 0949	HIRA	0000.0	0023.0	IV		2	25X	190	
		HOLL	0005.0	0023.0	CONT		1	69	169	
	0230 0635	CULG								
	0416 1741	ONDR								
		SVTO	0801.0	0802.0	III		1	25	76	
		IZMI	0801.8	0802.1	III	B	2	25	95	
	0600 1200	IZMI	0810.0U	0825.0U	I	N	1	220	270X	
		IZMI	0955.8	0956.9	I	GG	2	230	260	
		SVTO	0956.0	0956.0	III		1	25	80	
		IZMI	0956.1	0956.4	III	G	2	25X	95	
		IZMI	1018.0	1106.0	I	N	2	200	270X	
	1920 2400	HIRA								
	2300 2400	CULG								
31	0000 0700	CULG	0042.0	0042.0	III	B	1	23	80	
		CULG	0141.0	0143.0	III	G	1	35	180	
	0000 0950	HIRA	0141.5	0142.0	III	B	1	25X	200	
	0416 1742	ONDR								
		CULG	0529.0	0553.0	III	N	1	30	90	
		CULG	0533.0	0540.0	III	GG	1	23	180	
		HIRA	0534.0	0537.0	III	G	1	50	200	
		SVTO	0534.0	0540.0	III		1	25	180	
	0600 1200	IZMI	0637.6	0637.8	III	B,C	2	45	70	
		CULG	0638.0	0638.0	III	B	1	35	80	
		IZMI	0901.9	0902.2	III	B	1	30	105	
		IZMI	1112.0	1129.0U	I	N	2	60	95	
		HOLL	1833.0	1834.0	III		1	25	59	
		PALE	1833.0	1834.0	III		1	25	50	
		SGMR	1833.0	1834.0	III		1	30	45	

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S O L A R R A D I O E M I S S I O N Spectral Observations

MAY 2001

OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day (UT)	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
31			HOLL	1909.0	1910.0	III		1	25	151	
			PALE	1909.0	1910.0	III		1	25	55	
			SGMR	1909.0	1910.0	III		1	30	80	
			PALE	2057.0	2100.0	III		1	25	54	
	2100	2400	CULG	2100.0E	2216.0	I	S	1	100	160	
			HOLL	2233.0	2234.0	III		1	25	50	
1919	2400		HIRA	2252.5	2253.0	III	B	1	80	200	
			CULG	2253.0	2253.0	III	B	1	70	200	

Event Remarks:

B = Single burst	N = Intermittent activity in this period
C = Underlying continuum (particularly with Type I)	MOV = Moving (Type IV)
DC = Drifting chains	MWB = Meter wave burst
DP = Drifting pairs	RS = Reverse slope burst
F = Fundamental emission (Type II)	S = Storm in the sense of intermittent but apparently connected actively
FS = Fine structures (Type IV)	SH = Secondary harmonic emission
G = Small group of bursts (<10)	STA = Stationary (Type IV)
GG = Large group of bursts (>10)	U = U-shaped burst of Type III
H = Herringbone	UE = Uncertain emission (Type II)
HARM = Harmonic	W = Weak

Frequency qualifiers:

X = Extends beyond instrument range	U = Uncertain frequency
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Remarks:

SWF = Associated short wave fade observed
ESS = Estimated shock speed in km/s (Type II)
FLA = Associated flare observed (class optional)

Stations Reporting:

CULG = Culgoora	IZMI = Izmiran	LEAR = Learmonth	ONDR = Ondrejov
PALE = Palehua	POTS = Potsdam	SGMR = Sagamore Hill	SVTO = San Vito
BLEN = Bleien			

SOLAR RADIO NOISE STORM AT 164 MHZ**FROM NANCAY RADIOHELIOGRAPH**

MAY 2001

	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
DAY	E-W	S-N		START(UT)	END(UT)
01/05/01	-0.73	+0.78	I	8H18 E	15H18 D
01/05/01	-0.76	+0.36	I	8H18 E	15H18 D
01/05/01	+1.24	+0.54	I	8H18 E	15H18 D
03/05/01	+0.25	+0.14	I	10H29 E	12H36 D
03/05/01	+0.37	+0.16	I	10H29 E	12H36 D
05/05/01	-0.40	+0.57	III	8H17 E	15h17 D
05/05/01	+0.81	+0.20	III	8H17 E	15h17 D
06/05/01	+0.28	+0.68	I	8H33 E	15H17 D
06/05/01	+0.57	+0.59	I	8H33 E	15H17 D
06/05/01	+0.99	+0.22	I	8H33 E	15H17 D
07/05/01	+0.54	+0.57	I	8H17 E	15H15 D
08/05/01	+0.85	+0.54	I	10H06 E	14H20
10/05/01	+0.02	+0.48	I	8H17 E	15H17 D
10/05/01	+0.74	+0.54	I	8H17 E	11H00
11/05/01	-0.25	-0.36	II	12H30	15H18 D
11/05/01	+0.12	-0.43	I	8H17 E	15H18 D
12/05/01	-0.17	-0.42	III	8H17 E	15H17 D
12/05/01	+0.12	+0.22	III	11H14	15H17 D
12/05/01	+0.53	-0.54	III	8H17 E	15H17 D
13/05/01	-0.84	+0.51	I	8H17 E	15H17 D
13/05/01	+0.26	-0.48	II	8H17 E	15H17 D
13/05/01	+0.73	-0.48	III	8H17 E	15H17 D
14/05/01	-0.62	+0.64	I	8H17 E	15H01 D
15/05/01	+0.39	-0.47	I	8H36 E	15H18 D
15/05/01	+0.68	-0.57	I	8H36 E	15H18 D
16/05/01	+0.82	-0.62	I	12H00	15H18 D
16/05/01	+1.02	-0.25	I	8H18 E	15H18 D
17/05/01	+0.02	+0.47	I	11H40	15H17 D
17/05/01	+1.24	-0.40	I	8H17 E	15H17 D
18/05/01	+1.10	-0.59	I	8H17 E	12H00 D
21/05/01	-0.95	+0.23	I	8H27 E	15H18 D

¹ POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W QUADRANT² IMP1: FLUX< 5 SFU IMP2: 5< FLUX < 20 SFU IMP3: 20< FLUX <100 SFU
IMP4: 100< FLUX <300 SFU IMP5> 300 SFU³ E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANCAY OBSERVATIONS

D NOISE STORM IN PROGRESS AT THE END OF THE NANCAY OBSERVATIONS

21/05/01	-0.60	+0.09	I	8H27 E	15H18 D
21/05/01	+0.14	+0.14	I	8H27 E	15H18 D
22/05/01	-0.73	+0.09	I	8H59 E	15H18 D
22/05/01	-0.26	+0.19	I	8H59 E	15H18 D
23/05/01	+0.34	+0.14	II	9H20 E	15H18 D
24/05/01	+0.42	+0.23	II	8H18 E	15H18 D
24/05/01	+0.54	+0.34	II	8H18 E	15H18 D
25/05/01	+0.59	+0.17	IV	8H18 E	14H34 D
26/05/01	+0.85	+0.37	IV	8H18 E	15H18 D
27/05/01	+1.07	-0.03	III	8H18 E	15H18 D
28/05/01	+1.24	+0.43	II	8H30 E	15H18 D
29/05/01	+1.36	+0.56	I	8H18 E	15H18 D
29/05/01	+1.50	+0.33	I	8H18 E	15H18 D
30/05/01	-0.71	-1.15	I	8H43 E	15H18 D
30/05/01	+1.43	+0.59	I	10H10	12H00
31/05/01	+1.57	+0.67	I	8H20 E	10H00
31/05/01	+1.47	-0.14	II	10H00	15H19 D

NOISE STORM AT 327 MHZ
FROM NANCAY RADIOHELIOGRAPH
MAY 2001

	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
DAY	E-W	S-N		START(UT)	END(UT)
01/05/01	-0.74	+0.67	I	8H18 E	15H18 D
01/05/01	-0.56	+0.54	I	8H18 E	15H18 D
01/05/01	+1.21	+0.65	I	8H18 E	15H18 D
03/05/01	+0.34	+0.14	I	10H29 E	12h36 D
05/05/01	-0.99	-0.33	I	8H17 E	15h17 D
05/05/01	-0.43	+0.48	I	8H17 E	15h17 D
05/05/01	+0.79	+0.19	II	8H17 E	15H17 D
06/05/01	-0.82	-0.42	I	8H33 E	15H17 D
06/05/01	-0.19	+0.53	I	8H33 E	15H17 D
06/05/01	+0.23	+0.67	I	8H33 E	15H17 D
06/05/01	+1.26	+0.33	I	8H33 E	15H17 D
07/05/01	+1.19	-0.03	I	12H10	15H15 D
09/05/01	-0.26	-0.45	I	8H17 E	15H17 D

10/05/01	-0.08	-0.45	I	11H20	15H17 D
10/05/01	+0.02	-0.28	I	8H17 E	15H17 D
11/05/01	-0.26	-0.33	I	12H08	15H18 D
11/05/01	+0.26	-0.23	I	8H17 E	15H18 D
12/05/01	-0.90	+0.25	I	8H17 E	15H17 D
12/05/01	-0.23	-0.34	II	8H17 E	15H17 D
12/05/01	+0.05	+0.28	III	8H17 E	15H17 D
12/05/01	+0.50	-0.25	II	8H17 E	15H17 D
13/05/01	-0.82	+0.31	I	8H17 E	15H17 D
13/05/01	-0.76	+0.53	I	8H17 E	15H17 D
13/05/01	+0.03	-0.28	I	8H17 E	15H17 D
13/05/01	+0.70	-0.45	II	8H17 E	15H17 D
14/05/01	-0.53	+0.51	I	8H17 E	15H01 D
14/05/01	+0.26	-0.34	I	8H17 E	15H01 D
14/05/01	+0.85	-0.25	I	8H17 E	15H01 D
15/05/01	+0.48	-0.28	I	8H36 E	15H18 D
16/05/01	-0.16	+0.34	I	8H18 E	15H18 D
16/05/01	+0.90	-0.26	I	8H18 E	15H18 D
17/05/01	+1.01	-0.47	I	8H17 E	15H17 D
17/05/01	+1.13	-0.37	I	8H17 E	15H17 D
18/05/01	+1.07	-0.48	I	8H17 E	12H00 D
21/05/01	-0.82	+0.11	I	8H27 E	15H18 D
21/05/01	-0.79	+0.31	I	8H27 E	15H18 D
21/05/01	-0.51	+0.12	II	8H27 E	15H18 D
22/05/01	-0.57	+0.17	I	8H59 E	15H18 D
22/05/01	-0.23	+0.09	I	8H59 E	15H18 D
23/05/01	-0.34	+0.11	I	9H20 E	15H18 D
23/05/01	+0.00	+0.14	I	9H20 E	15H18 D
23/05/01	+0.11	+0.23	I	9H20 E	15H18 D
24/05/01	+0.26	+0.22	I	8H18 E	15H18 D
24/05/01	+0.28	+0.05	I	8H18 E	15H18 D
25/05/01	+0.56	+0.16	II	8H18 E	14H34 D
26/05/01	+0.79	+0.12	II	8H18 E	15H18 D
26/05/01	+0.85	+0.23	II	8H18 E	15H18 D
27/05/01	+1.04	-0.09	II	8H18 E	15H18 D
28/05/01	+1.07	+0.17	III	8H30 E	15H18 D
29/05/01	+1.32	+0.42	II	8H18 E	15H18 D
30/05/01	+1.04	+0.09	I	8H43 E	15H18 D
30/05/01	+1.35	+0.26	I	8H43 E	15H18 D

02, 04, 19, 20 NO DATA

OTHERS DAYS: NO DETECTABLE NOISE STORM

- For the days marked by an asterisk, intense ionospheric gravity waves are observed during the whole day. Without a more detailed analysis leading to increase uncertainties in the deviation, the positions which are indicated are estimated within 0.2 R
- *** importance not well determined due to the proximity of the very strong other source.

COSMIC RAY INDICES (Neutron Monitor)

May 2001

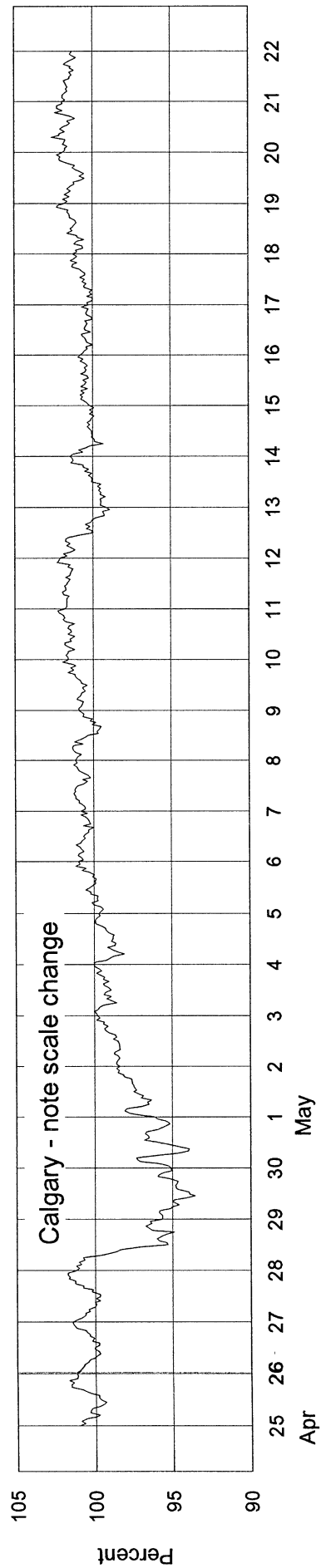
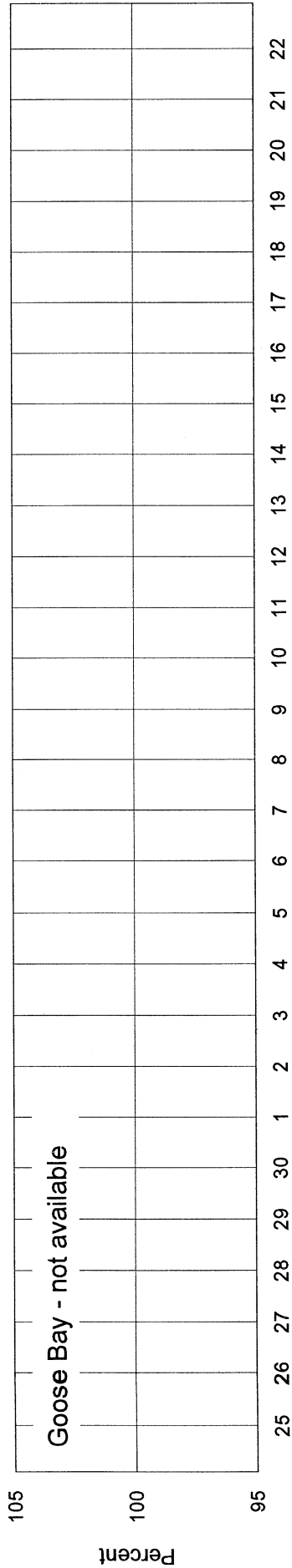
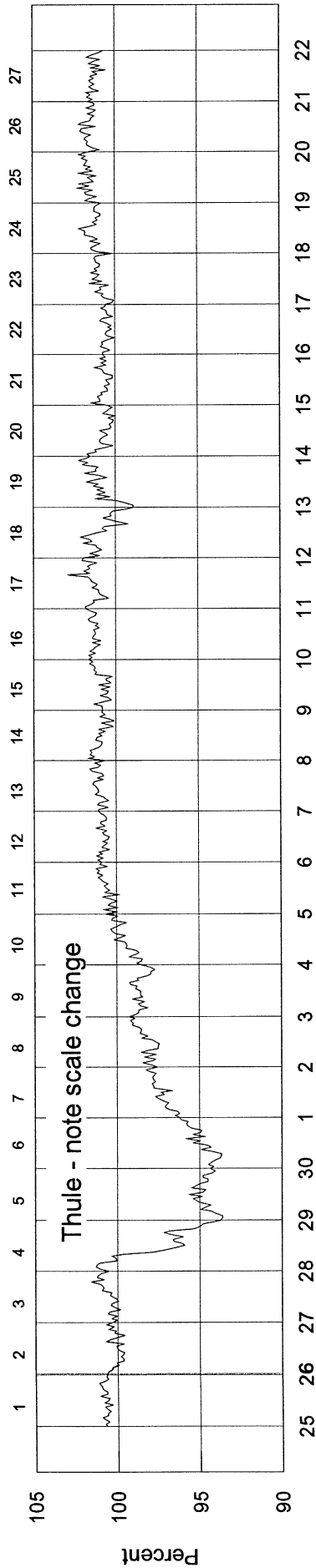
Day	THULE Average (cts/h)/100	GOOSE BAY Average (cts/h)/100	CALGARY Average (cts/h)/300	KIEL Average (cts/h)/100	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	3925.7	not available	3448.5	5482.4	8173.4	3610.3	1900.4	3440.7
2	3962.8	available	3496.7	5542.8	8275.6	3665.8	1908.1	3459.0
3	3976.7		3518.2	5577.7	8343.6	3702.2	1915.6	3473.8
4	4014.0		3509.5	5588.6	8356.5	3698.0	1918.3	3477.2
5	4060.5		3542.2	5652.4	8420.4	3736.7	1929.4	3495.0
6	4067.3		3561.2	5675.3	8467.4	3759.3	1933.7	3501.8
7	4077.6		3569.3	5684.9	8489.7	3759.2	1942.5	3506.1
8	4073.1		3558.7	5659.0	8497.2	3746.8	1942.0	3507.1
9	4070.0		3573.5	5679.6	8532.8	3774.4	1952.6	3529.0
10	4089.4		3596.8	5715.2	8562.7	3806.2	1954.1	3538.3
11	4093.6		3598.7	5718.7	8574.0	3797.9	1944.5	3531.5
12	4070.1		3563.3	5645.7	8497.0	3763.9	1928.3	3515.1
13	4072.5		3539.0	5680.7	8528.9	3760.8	1915.1	3521.5
14	4061.0		3547.3	5684.5	8541.8	3754.1	1920.0	3519.0
15	4063.3		3558.0	5674.3	8488.1	3758.0	1919.4	3521.2
16	4057.0		3553.0	5679.8	8487.8	3760.4	1918.5	3527.1
17	4073.1		3559.7	5694.1	8488.7	3777.5	1918.6	3526.0
18	4086.6		3583.2	5713.7	8517.3	3790.8	1913.8	3529.2
19	4102.0		3589.0	5720.0	8546.0	3795.4	1907.9	3534.9
20	4098.6		3604.7	5707.6	8543.5	3801.2	1898.2	3530.7
21	4088.6		3594.8	5693.8	8530.4	3794.8	1899.5	3527.9
22	4070.6		3569.7	5661.3	8478.9	3775.8	1889.6	3513.2
23	4038.7		3530.8	5607.6	8391.7	3728.0	1871.7	3485.2
24	4015.5		3505.8	5594.9	8371.7	3710.6	1871.2	3476.4
25	3998.2		3481.7	5564.0	8343.2	3687.9	1870.5	3467.9
26	4014.0		3485.8	5580.5	8350.2	3681.1	1873.0	3465.9
27	4020.7		3488.8	5546.0	8289.2	3691.9	1865.3	3473.3
28	3926.3		3424.3	5437.3	8156.5	3612.5	1852.4	3429.7
29	3970.4		3456.0	5501.5	8262.1	3649.0	1867.7	3459.1
30	4012.5		3487.0	5535.2	8312.1	3662.5	1878.5	3457.2
31	4073.3		3543.5	5650.0	8439.6	3740.7	1898.9	3502.1
Mean	4042.0		3536.7	5630.6	8427.7	3734.2	1907.1	3498.5

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours, and for Haleakala, whenever the sum of all three sections falls below 60 hours.

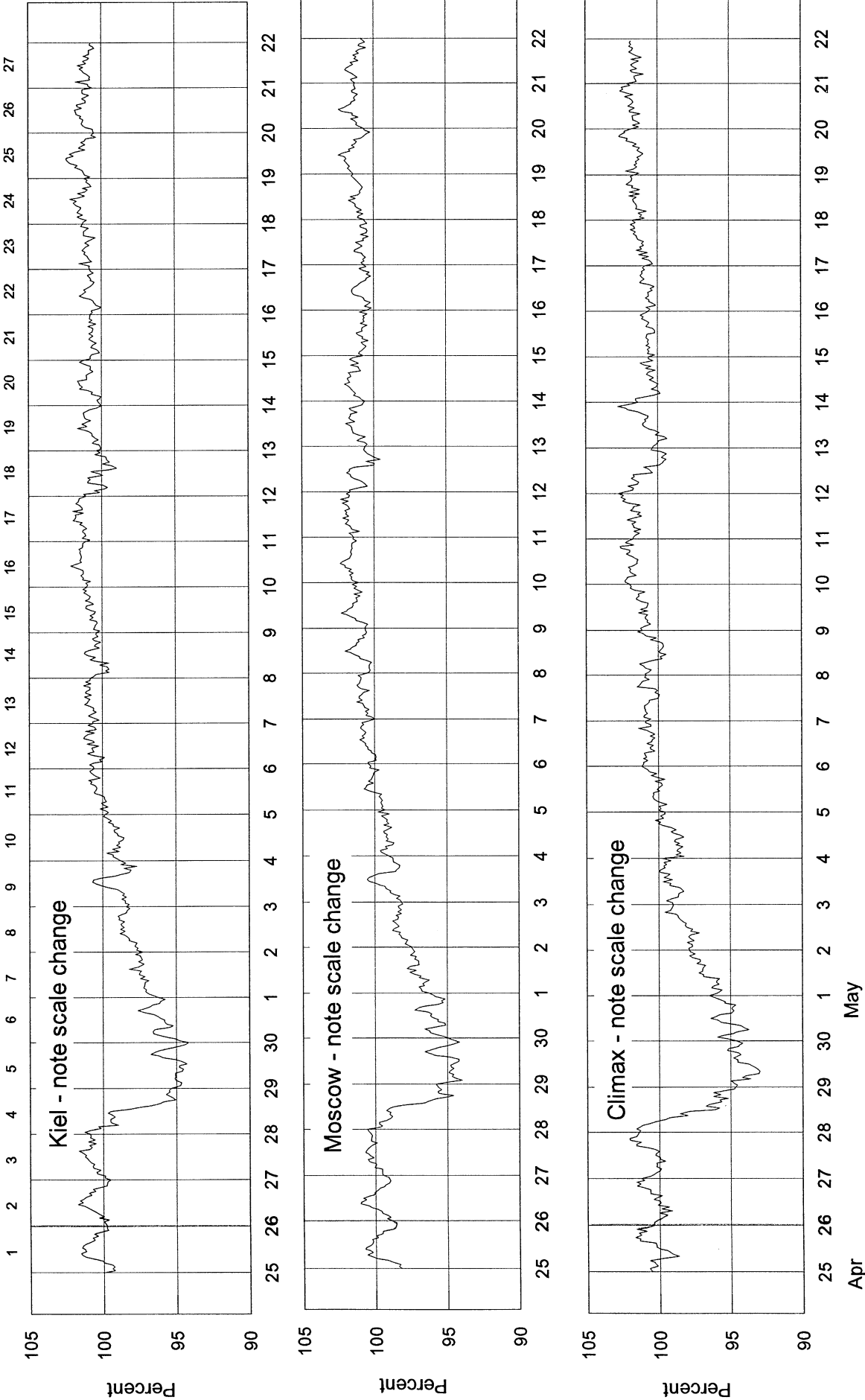
COSMIC RAY INDICES

(Neutron Monitor)

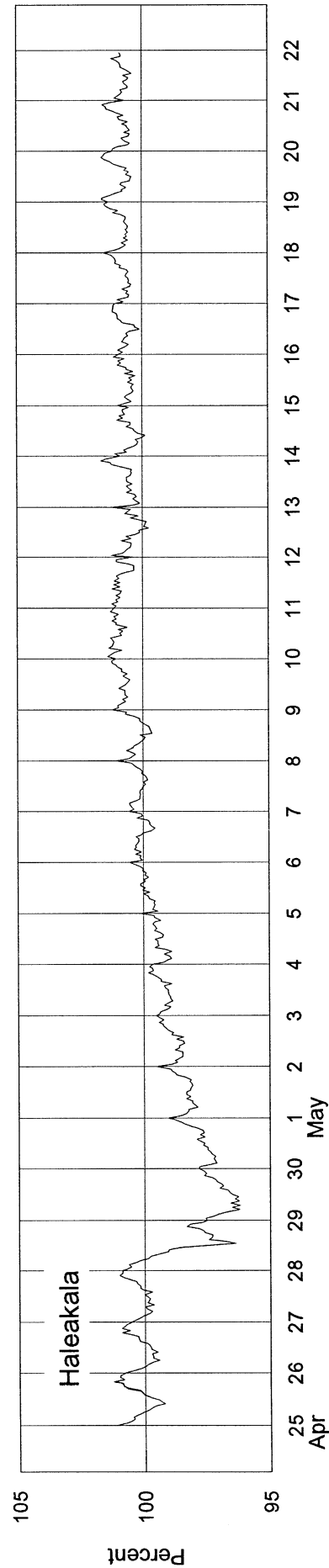
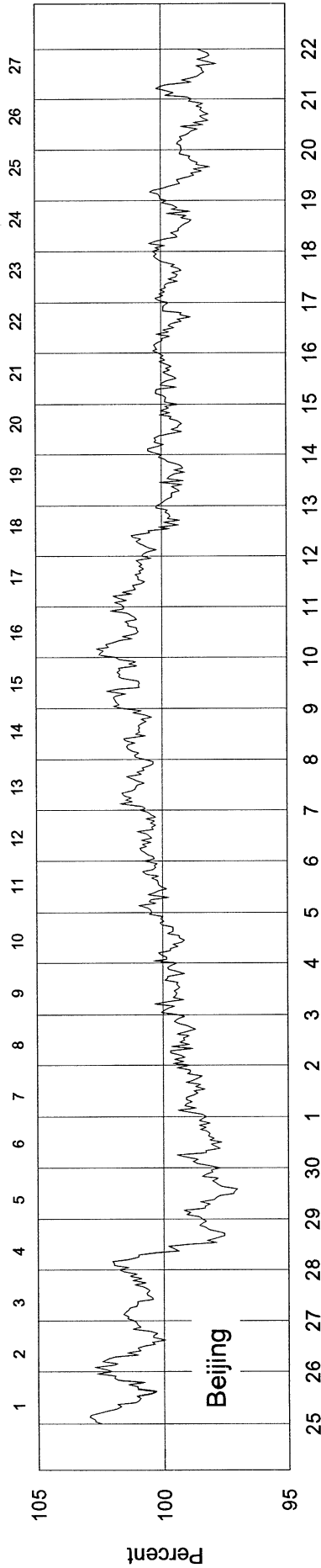
Bartels Rotation 2290 - Beginning 25 April 2001



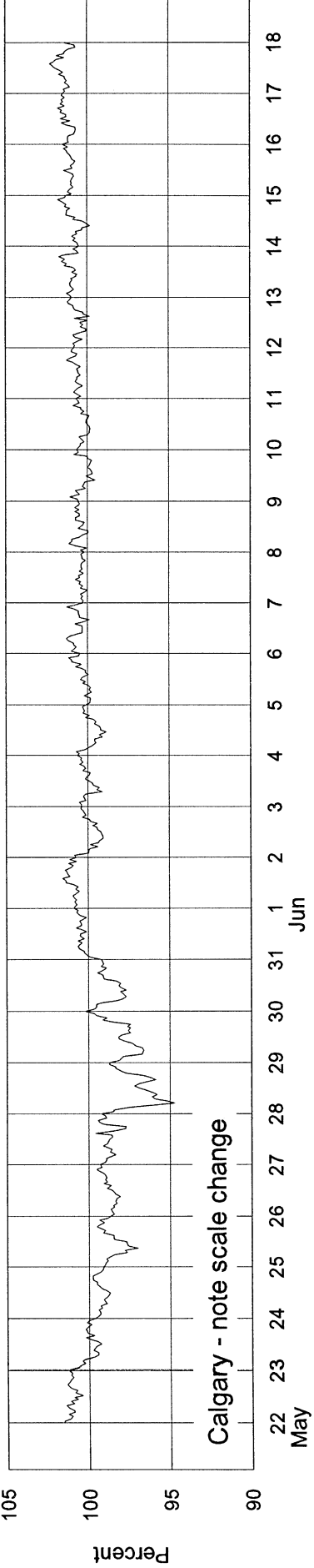
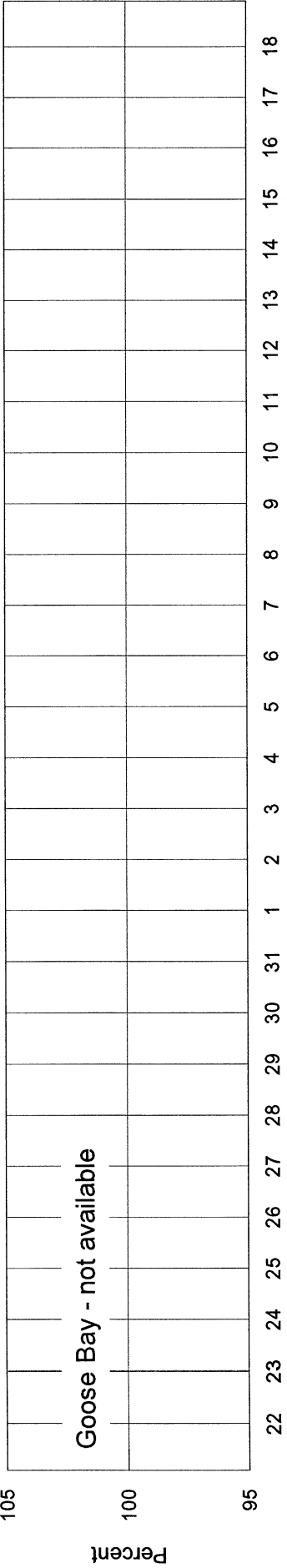
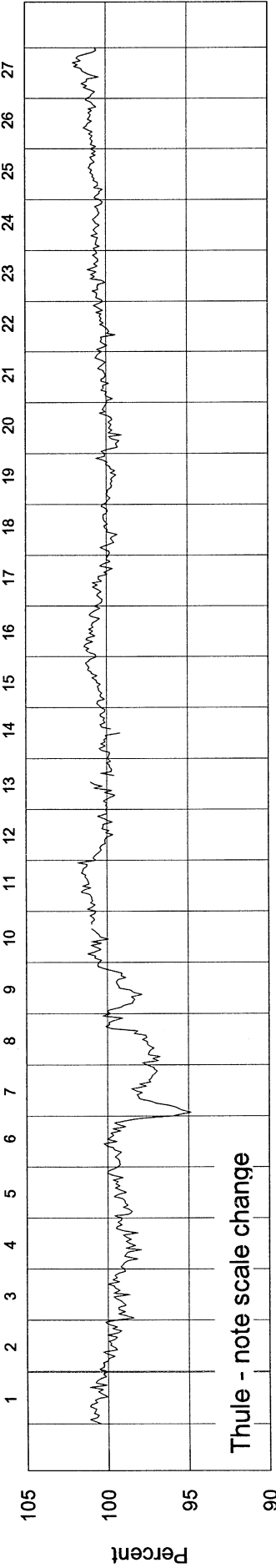
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2290 - Beginning 25 April 2001



COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2290 - Beginning 25 April 2001

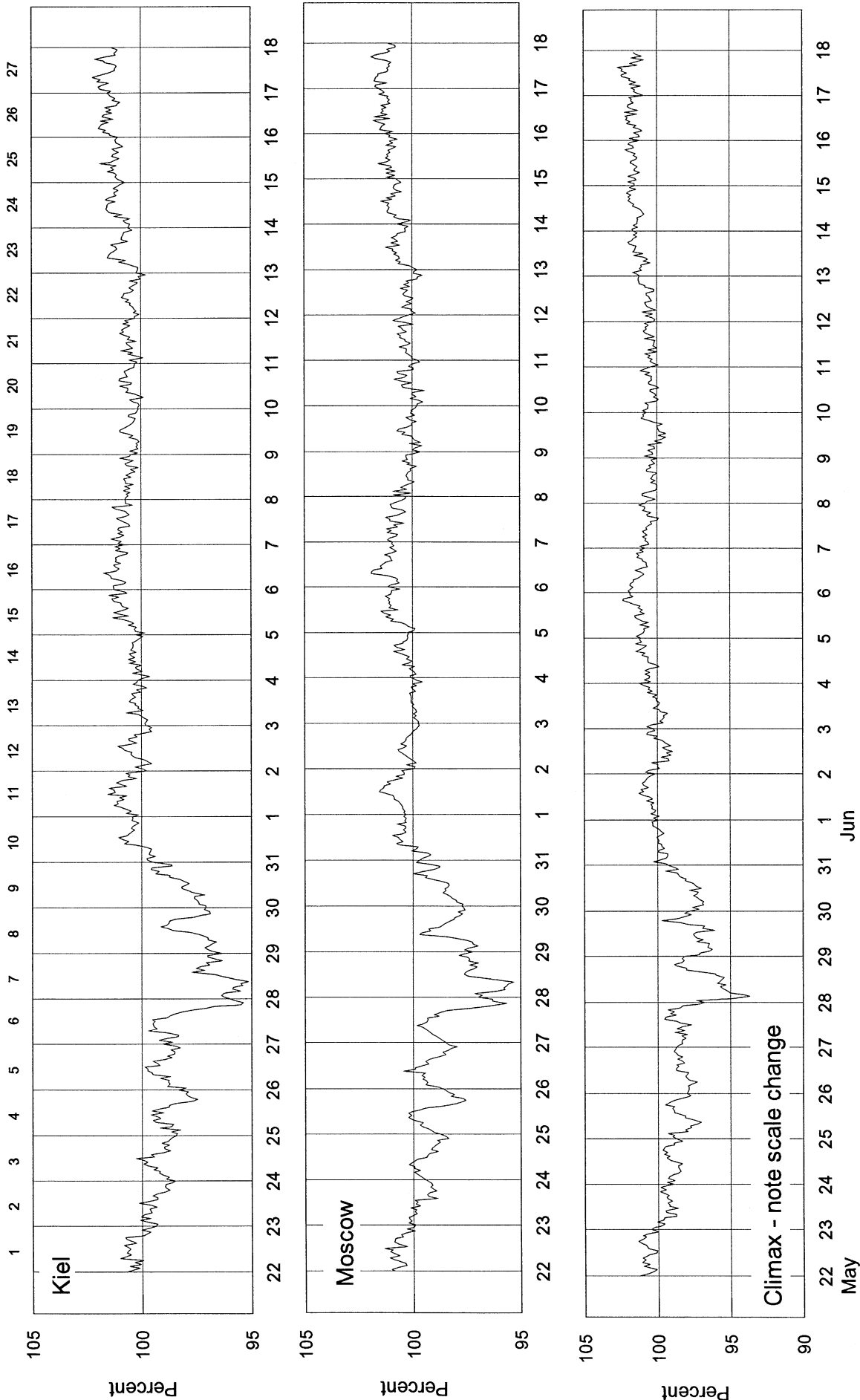


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2291 - Beginning 22 May 2001

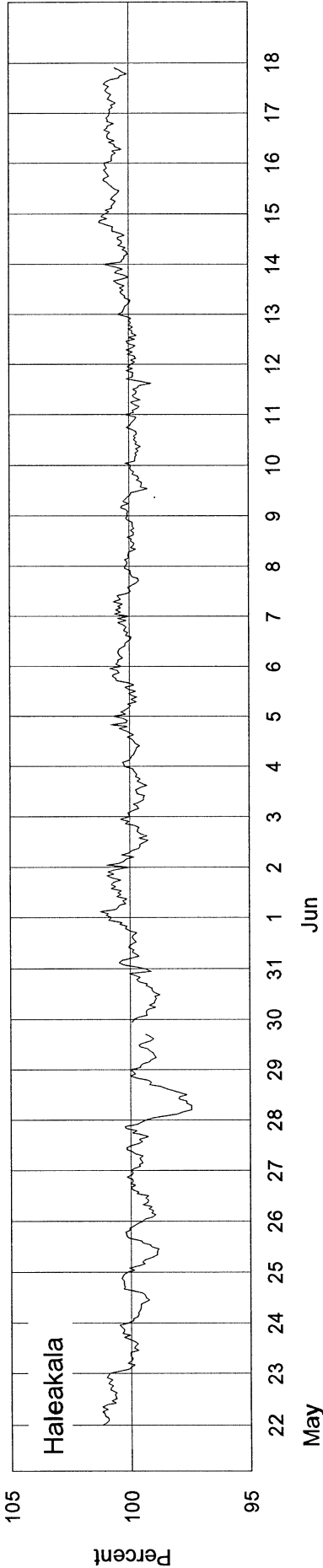
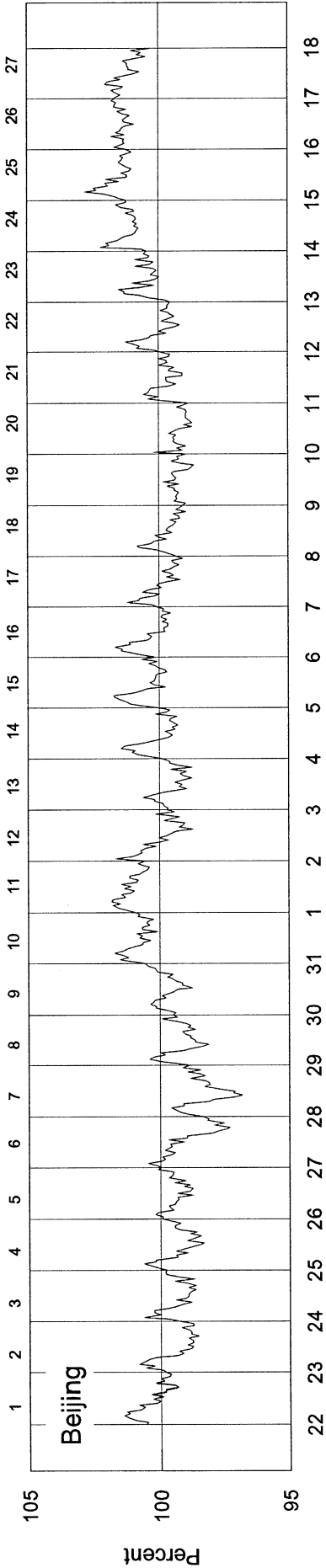


COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2291 - Beginning 22 May 2001

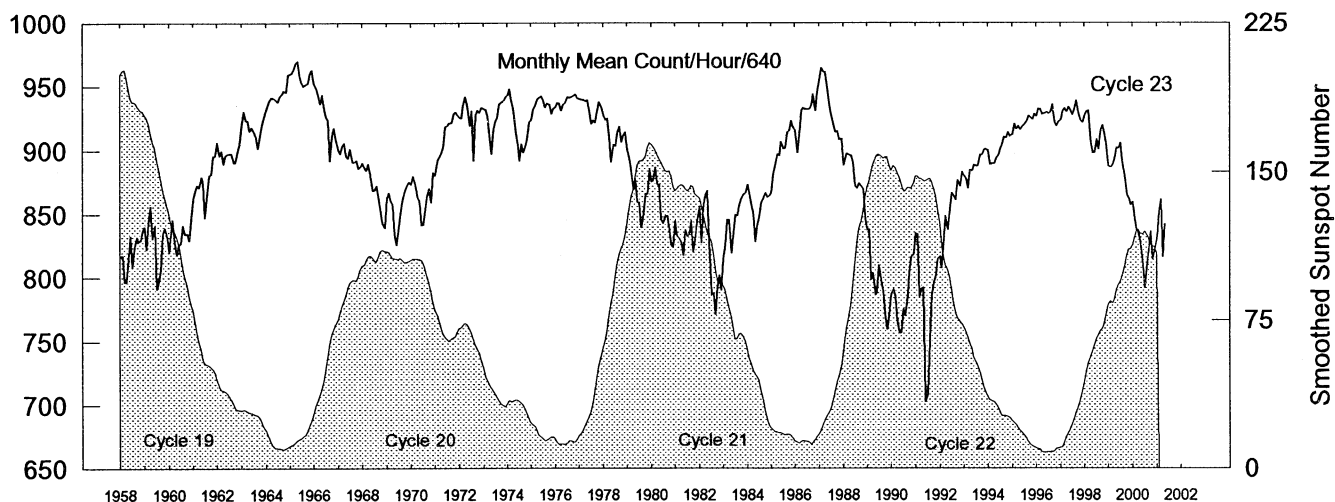


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2291 - Beginning 22 May 2001



Moscow Neutron Monitor Pressure-Corrected Values Jan 1958 - May 2001

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May 01



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1958	8171*	8175*	7973*	7971*	8145*	8330*	8087*	8266*	8324*	8291*	8294*	8378*	8200*
1959	8405	8223	8443	8565	8309	8416	7911	7972	8054	8351	8397	8325	8281
1960	8199	8313	8459	8264*	8178*	8272*	8272*	8417	8348	8348	8295	8464	8319*
1961	8619	8682	8731*	8708*	8791*	8759*	8472	8676	8808	8816	8957	8956	8748*
1962	9061	8959	8996	8891	8964*	8974	8977	8977	8908	8902	8973	9056	8940*
1963	9201	9308	9243	9239	9154	9180	9147	9109	9020	9110	9194	9259	9180
1964	9321	9353	9395	9416	9410	9396	9384	9425	9442	9473	9458	9594	9422
1965	9602	9608	9642	9685	9701	9586	9530	9505	9520	9525	9608	9630	9595
1966	9531	9502	9439	9367	9438	9336	9261	9242*	8916	9105*	9178	9094	9284*
1967	9006	8973	9038	9059	8956	8940	9015	8913	8911	8924	8860	8873	8956
1968	8904	8875*	8844*	8892*	8825*	8690*	8689	8725	8635*	8533*	8428	8394	8703*
1969	8628	8666	8606	8584	8334	8261	8378	8510	8612	8689	8731	8751	8562
1970	8735	8799	8749	8639	8608	8418	8420	8540	8656	8702	8596	8827	8641
1971	8805	8921	8952	8982	9028	9185	9190	9219	9215	9285	9302	9276	9113
1972	9260	9254	9367	9419	9364	9192	9311	8916	9275	9319	9298	9336	9275
1973	9333	9321	9258	9107	8975	9160	9233	9263	9368	9376	9392	9423	9267
1974	9431	9481	9390	9327	9153	9062	8916	9054	8983	9027	9092	9222	9178
1975	9238	9317	9361	9405	9415	9425	9395	9339	9370	9361	9285*	9330	9353*
1976	9339	9375	9370	9310	9363	9371	9423	9418	9423	9428	9440	9415	9380
1977	9405	9404	9401	9392	9399	9318	9209	9236	9216	9302	9384*	9341	9334*
1978	9279	9243	9254	9113	8907	9050	9035	9149	9189	9062	9118	9145	9216
1979	9012	8955	8860	8693	8778	8599	8592	8396	8470	8662	8661	8857	8740
1980	8752	8776	8871	8737	8732	8463	8430	8490	8491	8379	8259	8242	8552
1981	8451	8330	8311	8277	8176	8379	8332	8338	8452	8206	8289	8439	8332
1982	8565	8277	8565	8649	8686	8279	7870	7882	7712	7931	8023	7902	8195
1983	8150	8253	8460	8460	8194	8343	8498	8492	8575	8625	8658	8670	8448
1984	8736	8686	8574	8505	8286	8421	8476	8590	8632	8669	8641	8644	8575
1985	8671	8813	8878	8973	8958	9066	9018	9017	9140	9155	9233	9183	9009
1986	9162	8982	9125	9316	9339	9328	9326	9327	9368	9444	9312	9472	9292
1987	9553	9646	9619	9618	9505	9349	9268	9202	9149	9153	9085	9094	9353
1988	8885	8922	8979	8968	8961	8904	8724	8704	8745	8716	8699	8474	8807
1989	8381	8385	7985	8043	7868	7888	8102	7977	7897	7709	7592	7701	7961
1990	7871	7910	7846	7652	7574	7569	7755	7701	7864	8037	8168	8185	7844
1991	8356	8347	7850	7915	7926	7025	7082	7510	7863	7964	8008	8153	7833
1992	8169	8078	8247	8490	8378	8535	8670	8649	8614	8767	8717	8833	8512
1993	8804	8784	8705	8846	8842	8888	8884	8880	8968	8968	9010	9011	8882
1994	9001	8895	8899	8898	8942	8963	9013	9055	9110	9098	9141	9112	9011
1995	9122	9206	9169	9193	9159	9186	9203	9228	9272	9257	9241	9286	9210
1996	9266	9328	9324	9287	9291	9302	9295	9302	9364	9226	9192	9227	9284
1997	9240	9311	9334	9302	9340	9318	9277	9322	9390	9281	9233	9217	9297
1998	9273	9306	9312	9057	8981	8983	9088	9007	9157	9196	9133	9036	9127
1999	8883	8867	8887	8937	9021	9018	9058	8904	8794	8660	8627	8574	8853
2000	8600	8481	8377	8358	8283	8107	7921	8081	8224	8365	8146	8215	8263
2001	8314	8521	8617	8168	8428								8410

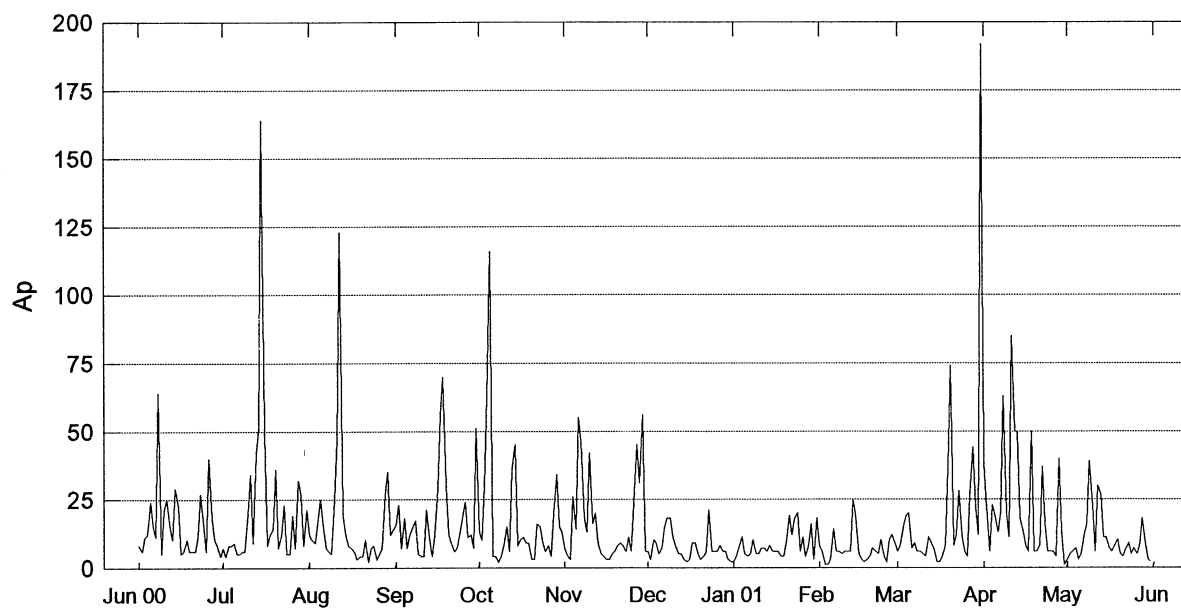
Multiply table entries by 64 to obtain hourly counting rate. Moscow, Russia: N55, E37, Alt= 200 m, Cutoff Rigidity= 2.42GV.
NOTE: * Indicates data have been restored using the corresponding data of other cosmic ray stations.

Geomagnetic Activity Indices May 2001

		Kp Three-Hourly Indices										Km Three-Hourly Indices										aa Provisional			
Day		1	2	3	4	5	6	7	8	Sum	Ap	Cp	1	2	3	4	5	6	7	8	Am	N	S	M	
1	Q5	1	0+	1-	1-	1	0+	2-	1-	6+	3	0.1	1-	0+	1o	1-	1o	1-	1+	1-	5	7	3	4	6 CC
2	Q6	1	1+	2	2-	1	1+	1-	1-	10-	5	0.2	1o	1+	2+	2o	1+	1+	1o	0+	9	9	9	11	8 CK
3		2	1	1	2+	1+	2-	2-	2-	13-	6	0.3	2-	1o	1+	3o	2-	2-	2-	2-	13	11	17	15	13 K
4		1	2	3	2	1	1	2-	2-	13+	7	0.3	1o	2o	3-	3-	1+	1o	2-	2-	14	12	15	17	10 CC
5	Q2	0+	0+	1-	1-	0	1-	1	1	5-	3	0.0	0+	0+	1o	1-	0o	1-	1o	1+	4	4	4	2	6 CC
6	Q8	0+	0+	2-	1+	1+	1	2-	2	10-	5	0.2	0+	1-	2-	2-	1+	1-	1+	2o	9	9	8	5	12 CK
7		3-	4	3+	2	3-	2	3-	1-	20	12	0.7	3-	3+	3+	3-	3-	3-	3-	1-	25	26	24	25	25
8		1+	1-	2+	2+	3+	4-	4+	4	22	16	0.9	1+	1o	3-	3-	3o	3o	4-	4-	27	32	28	11	49
9	D1	5	5	4-	4-	5-	5+	5	4+	37-	39	1.4	4+	5-	3+	4-	4+	5-	4+	4o	60	56	54	35	74
10	D4	5+	5	4-	3-	3-	2+	3	3-	27+	23	1.1	5-	5-	4o	3o	3-	2+	3+	3-	42	40	32	42	30
11		2+	1	1+	1	0+	1-	2-	3+	12-	6	0.3	2o	1+	2-	1+	1-	1+	2-	3+	14	14	8	10	12 C
12	D2	3+	2+	3+	5-	5+	4+	4+	5-	32+	30	1.3	3o	3o	3+	4+	4o	5+	4o	4+	56	43	52	29	67
13	D3	5	3+	2+	2+	3+	4	5+	4+	30	27	1.2	5-	3+	3+	2+	3o	4-	5-	5-	47	60	32	33	59
14		4+	3	3	1	1	2-	2-	1	17-	11	0.6	4o	3o	3+	1o	1o	1+	2-	1o	21	17	20	28	9
15		1+	2-	3-	2+	2-	3	4-	3	19+	11	0.6	2-	2o	3o	3+	2-	3-	3o	3+	24	31	28	25	34
16		3-	2	3-	2-	1+	1+	1-	2+	15-	7	0.4	3o	2+	3o	3o	1o	1+	1-	2+	18	15	15	21	9
17		2-	2	1	1	1	2	2-	2+	13-	6	0.3	2-	2+	1+	2-	1o	1+	1+	2+	12	15	13	14	14 K
18		3-	2+	1	1	2-	1+	1+	3	14+	8	0.4	3-	2+	1+	2o	2-	1+	1o	3-	15	18	12	15	15
19		4	4-	2-	1	1	1	2-	1-	15-	10	0.5	4-	3+	2-	1+	1+	1-	2-	1-	17	21	16	30	8
20	Q10	1	2-	2-	1+	2	1+	1	1	11	5	0.2	1o	2o	2o	2-	2-	1+	1o	1-	10	11	7	7	11 CC
21	Q4	1-	1-	1-	1+	1	1-	1	1-	7-	4	0.1	1-	1-	1o	2o	1+	1-	1-	1-	6	9	5	7	7 CC
22		1+	1+	1+	2	2	2	3-	2	15-	7	0.3	1+	1+	2-	2+	1+	2o	2o	2o	13	18	9	10	17 CC
23		2+	2	2-	1+	2+	3+	2+	2+	18-	9	0.5	2+	2o	2-	2-	2o	3-	2+	2o	15	21	9	12	18
24	Q9	2+	2	1-	1	1	1	1	1	10	5	0.2	2+	2o	1+	1+	1o	1o	1o	1+	10	10	8	11	7 CC
25		1+	1	1	1+	2+	3-	3-	1	13+	7	0.3	1+	1-	2o	2-	2+	2+	2+	1+	13	13	8	7	14 CC
26	Q7	2-	2	2-	1+	1-	1-	1-	1	10-	5	0.2	2-	2+	2o	2-	0+	1-	1o	1o	10	7	5	8	4 CC
27		0+	0+	0+	1	1+	4+	3-	2	12+	8	0.4	0+	0+	0+	1o	2o	3+	2+	2+	13	18	9	4	23 KK
28	D5*	2+	2	2+	4-	4-	4+	3+	4	26-	18	1.0	2o	2+	2o	4-	3+	4-	3-	3+	30	32	20	18	35
29		3	2-	1	1	3	3+	1+	1-	15	9	0.5	3o	2o	1+	2-	3-	3-	1+	1-	16	22	11	14	19
30	Q3	0+	0+	0	0+	1+	1-	1+	1	5+	3	0.1	0+	0o	0+	1-	1+	1-	1o	1o	4	8	4	2	10 CK
31	Q1	0+	0+	0	0+	1	1-	1-	1-	4	2	0.0	0o	0o	0+	0+	1o	1o	0+	1-	3	5	2	2	5 CC
Mean											10	0.47									18.5	19.9	15.8	17.8	
		Kn Three-Hourly Indices										Ks Three-Hourly Indices										Prov			
Day		1	2	3	4	5	6	7	8	An	1	2	3	4	5	6	7	8	As	Sa	Ri	Ra	Rs	IMF	
1		1-	1-	1+	1+	1+	1-	1+	1-	7	0+	0o	1o	0+	1o	0+	1o	1-	4	187.4#	115	123	140		
2		1o	1+	3-	2o	1+	1+	1o	1o	11	1o	1o	2o	2o	1+	1o	1-	0o	8	179.0	118	127	131		
3		2-	1+	2-	3o	2+	2+	2-	2-	15	2o	1-	1o	3o	1+	1+	2-	1+	11	175.1	115	128	127		
4		1+	2o	3o	3-	1+	1+	2-	2-	15	1o	2-	3-	3o	1+	0o	1+	1+	12	178.6	132	140	131		
5		1-	1-	1+	1o	0o	1o	1+	1+	6	0o	0o	0+	0+	0o	0+	1o	1o	3	163.5	118	125	115		
6		1-	1o	2o	2+	2o	1o	2-	2+	12	0o	0o	1+	1+	1-	0+	1o	2-	5	157.8	92	94	108		
7		3-	4-	4-	3-	3-	3o	3-	1-	27	3o	3-	3+	3-	3-	2+	3-	0+	22	140.9	79	77	90		
8		1+	1+	3o	3-	3o	3o	4-	4-	28	2-	1-	3-	3-	3o	3-	4-	4-	26	131.1	55	62	80		
9		4o	4+	3+	4o	5-	4+	4+	4-	57	4+	5-	3+	4-	4+	5-	4+	4o	62	131.9	63	64	80		
10		4o	4+	4+	3-	3-	3-	3-	3-	37	5o	5-	4o	4-	3-	2o	4-	3-	47	133.0	60	66	82		
11		2+	1+	1+	1+	1-	1o	2o	3+	14	2-	1+	2-	1o	0+	1+	2-	4-	14	139.4	80	86	89		
12		3o	2+	3+	5-	4o	6+	3+	4-	59	3+	3+	3+	4+	4+	3+	5-	5-	53	141.0	84	92	90		
13		5-	4-	3-	3-	3+	4-	4+	4o	47	5-	3+	2o	2-	3-	3+	5o	5o	48	141.9	85	94	91		
14		4o	3o	3o	1+	1+	2-	2o	1+	21	4o	3+	4-	1o	0+	1o	2-	1-	21	141.2	102	107	90		
15		1+	2o	3-	3+	2-	3o	3o	3+	25	2o	2+	3o	3o	1+	2+	3+	3o	24	145.2	96	103	95		
16		3-	2+	3o	3+	1+	2-	1o	2+	20	3+	2+	3o	2+	1-	1-	0o	2+	16	140.9	99	103	90		
17		1+	2+	1+	2o	1+	2-	2-	3-	14	2o	2o	1+	1+	0+	1o	1o	2-	9	150.8	95	105	101		
18		3o	3-	2-	2+	2+	2-	1+	3o	18	2+	2o	1o	1+	1+	1-	0o	2+	11	141.5	100	101	91		
19		4-	4-	2-	2-	1+	1o	2o	1o	19	4-	3+	2o	1o	1o	0+	2-	0+	16	144.6	85	90	94		
20		1o	2+	2+	2-	2o	1+	1o	1+	12	1-	1+	2-	1+	1o	1+	1-	0+	7	144.9	82	85	94		
21		1+	1o	1+	2+	2-	1-	1o	1+	9	0o	0+	1-	1+	1-	0+	0o	0+	3	153.8	95	101	104		
22		2o	1+	2-	3-	2o	2o	3-	2+	17	1o	1+	1+	1+	1o	2-	1o	2-	9	155.8	121	131	106		
23		2+	2+	2-	2-	3-	3+	3-	2+	20	2o	2o	1+	1+	1o	1+	1+	1+	10	162.8	134	132	114		
24		2+	2-	1+	2-	1o	1+	2-	1+	11	2+	2o	1o	1o	1o	0+	0+	1o	8	174.7	118	128	127		
25		1+	1-	2o	2+	3-	3-	3-	2-	16	1o	1-	2-	1+	1+	2o	2-	1-	9	166.1	112	113	117		
26		2+	2+	3-	2-	1-	1o	1+	2-	13	1+	2+	2-	2-	0o	0+	0+	0o	7	151.3	118	125	101		
27		1-	0+	1o	1+	3-	4-	3o	3-	18	0o	0+	0o	1-	1+	3o	2o	1+	9	150.8	124	113	101		
28		2+	2o	2+	4o	4-	4o	3o	4o	37	2-	2+	1+	3o	3o	3+	3-	3-	23	146.9	103	106	97		
29		3o	2o	2-	2o	3+	3o	1+	1o	19	3+	2-	1-	1o	2-	2o	1-	0+	11	142.3	92	86	92		
30		1-	0+	1-	1+	2-	1o	1+	1+	7	0o	0o	0o	0o	1-	0+	0+	0+	2	136.0	75	72	85		
31		0+	0+	1-	1o	2-	1+	1-	1o	6	0o	0o	0o	0o	0o	0+	0+	0o	1	136.6	69	72	86		
Mean											20.5									16.5	152.0				

Daily Average Indices Ap Jun 2000 -May 2001

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May 01

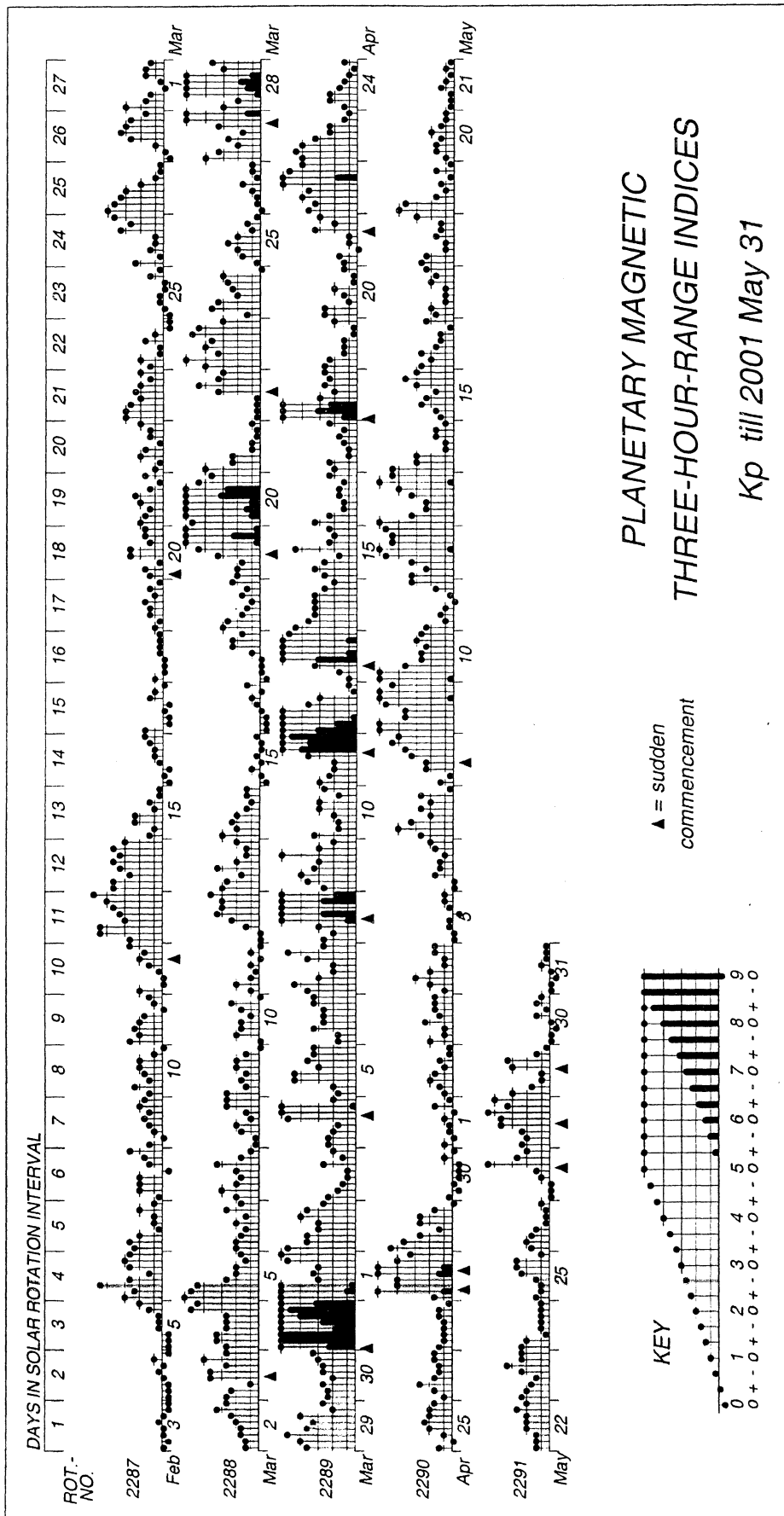


Day	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar	Apr	May
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3	11	8	9	7	30	3	10	8	1	15	6	6
4	12	8	17	18	63	26	9	11	1	19	23	7
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9	5	6	5	5	4	13	18	5	5	6	20	39
10	21	20	25	4	8	42	11	5	6	5	11	23
11	25	34	47	4	15	16	8	7	6	4	85	6
12	15	9	123	21	6	20	5	7	6	11	50	30
13	10	42	19	10	36	9	5	6	25	9	50	27
14	29	51	12	4	45	5	3	8	19	7	18	11
15	23	164	8	12	8	4	2	6	5	2	13	11
16	5	50	7	29	10	3	3	6	3	2	8	7
17	6	8	6	56	11	3	9	6	2	4	6	6
18	10	12	3	70	9	5	9	4	3	8	50	8
19	6	14	4	30	9	6	5	4	4	37	6	10
20	6	36	4	12	3	8	3	9	7	74	6	5
21	6	7	10	9	3	9	4	19	6	8	8	4
22	11	12	2	6	16	8	6	12	5	12	37	7
23	27	23	7	7	15	6	21	18	10	28	16	9
24	15	5	8	12	9	11	6	20	4	11	6	5
25	6	5	3	19	6	6	6	6	2	6	6	7
26	40	19	5	24	8	28	6	11	10	4	6	5
27	18	7	7	11	4	45	8	4	12	27	4	8
28	10	32	27	12	20	31	6	8	9	44	40	18
29	8	27	35	7	34	56	6	16		22	13	9
30	4	8	12	51	15	6	3	3		12	1	3
31		21	14		13		2	18		192		2
Mean	15	21	16	18	18	17	7	8	7	20	22	10

PLANETARY 3-HOUR-RANGE INDICES (Kp) BY 27-DAY SOLAR ROTATION INTERVAL

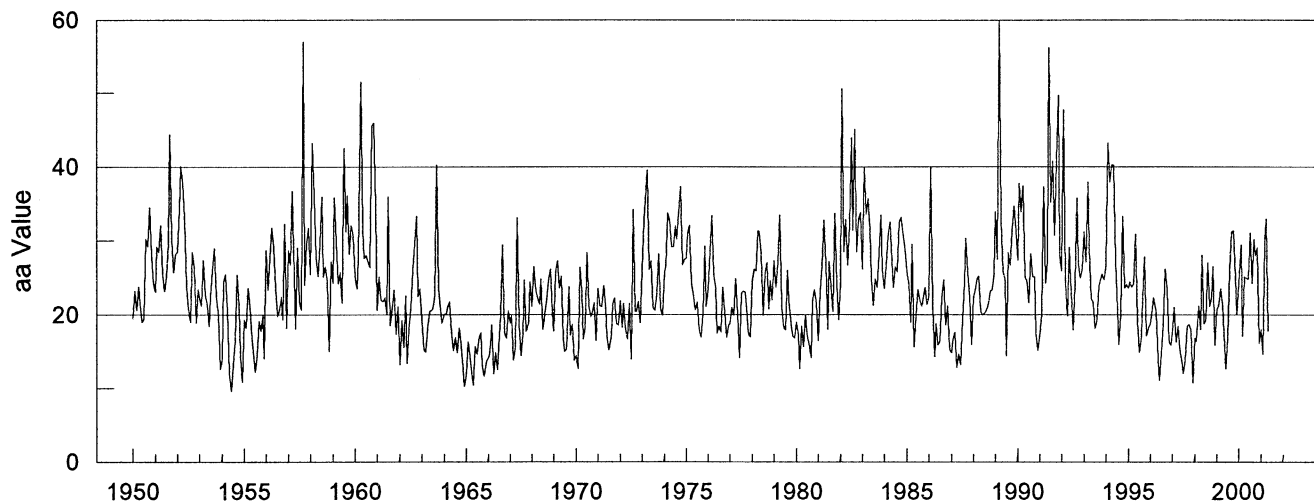
GeoForschungsZentrum Potsdam

Kp through May 31, 2001



Monthly Mean aa Index Jan 1950 - May 2001

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May 01

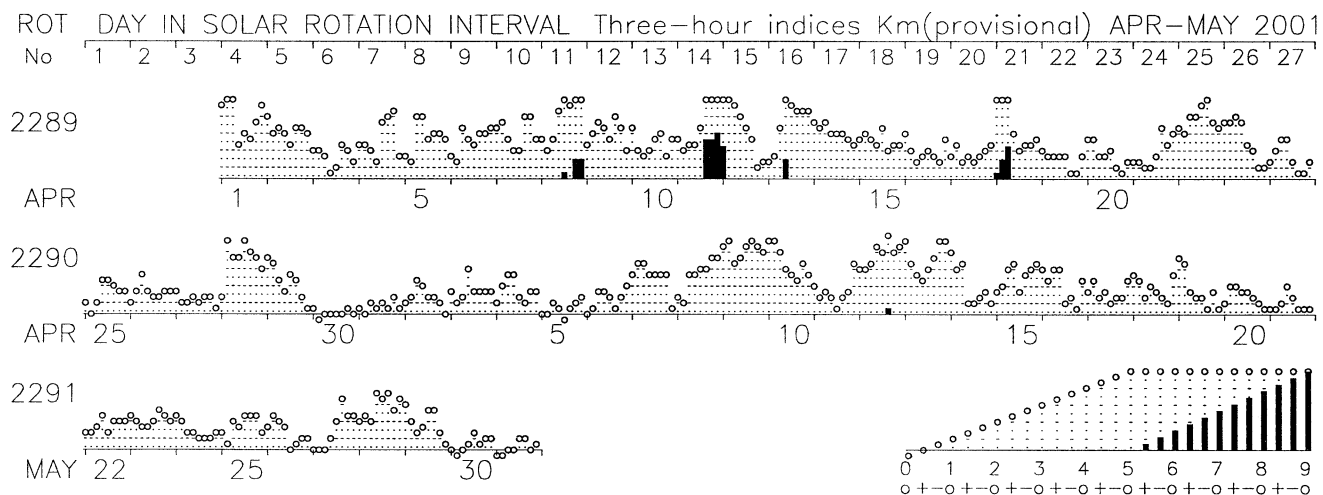


Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.3
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.4
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.5
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.7	16.8	17.5	13.1	11.7	13.8	14.1
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.3
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.6
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.8	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	19.9
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.0	17.3	12.7	18.4	15.6	20.0	17.0	15.9	14.2	21.9	23.3	21.7	18.1
1981	16.5	23.1	26.6	32.8	26.9	18.0	27.2	24.0	20.4	33.7	24.1	19.3	24.4
1982	24.2	50.6	28.5	32.9	26.7	32.1	43.9	31.4	45.1	28.5	33.0	33.8	34.2
1983	26.2	40.0	33.6	35.7	31.6	24.9	21.3	24.9	23.7	28.3	33.5	26.0	29.1
1984	23.5	26.7	30.7	32.5	27.2	23.7	26.4	25.8	32.6	33.1	31.0	29.0	28.5
1985	25.7	24.1	19.0	29.5	15.6	19.9	23.4	22.0	21.2	22.2	23.7	21.4	22.3
1986	22.4	40.0	21.1	14.3	18.8	15.9	16.3	22.3	24.7	18.6	21.2	15.3	20.9
1987	14.8	16.6	17.6	12.9	14.7	13.2	19.3	24.3	30.3	25.8	22.4	16.0	19.0
1988	22.4	23.4	24.8	25.2	20.5	20.0	20.2	20.6	21.4	23.2	23.3	25.5	22.5
1989	33.9	27.5	60.1	32.8	25.7	24.9	14.4	28.4	26.7	31.4	34.7	31.4	31.0
1990	27.4	37.8	33.9	37.4	25.1	24.6	21.6	28.2	25.1	25.1	17.4	15.2	26.6
1991	17.2	20.1	37.3	24.3	27.3	56.2	35.2	40.8	30.7	44.1	49.7	28.0	34.2
1992	25.9	47.7	24.5	19.8	29.1	24.8	17.9	24.1	35.8	27.0	25.0	26.1	27.3
1993	31.2	27.1	37.9	29.2	22.1	21.8	18.2	19.2	23.8	24.6	25.5	24.8	25.5
1994	26.5	43.2	37.9	40.2	40.2	27.2	20.6	16.0	20.2	33.3	23.6	24.1	29.4
1995	23.6	24.5	23.8	24.2	30.9	19.1	14.9	17.0	22.2	27.9	17.2	18.2	22.0
1996	18.8	20.8	22.3	20.5	14.0	11.1	14.7	18.8	26.2	23.5	16.3	15.9	18.6
1997	17.4	21.0	16.3	18.4	15.1	13.7	12.1	13.7	18.4	18.7	18.0	10.8	16.1
1998	16.8	16.4	21.2	18.0	28.1	18.8	19.3	27.0	21.1	22.4	26.5	15.9	21.0
1999	20.8	21.3	23.5	21.3	15.8	12.7	16.9	26.2	31.2	31.3	25.1	20.1	22.2
2000	24.2	29.4	17.1	25.1	25.0	24.9	31.1	24.3	30.2	28.1	29.1	16.1	25.4
2001	18.0	14.7	30.2	33.0	17.8								22.7

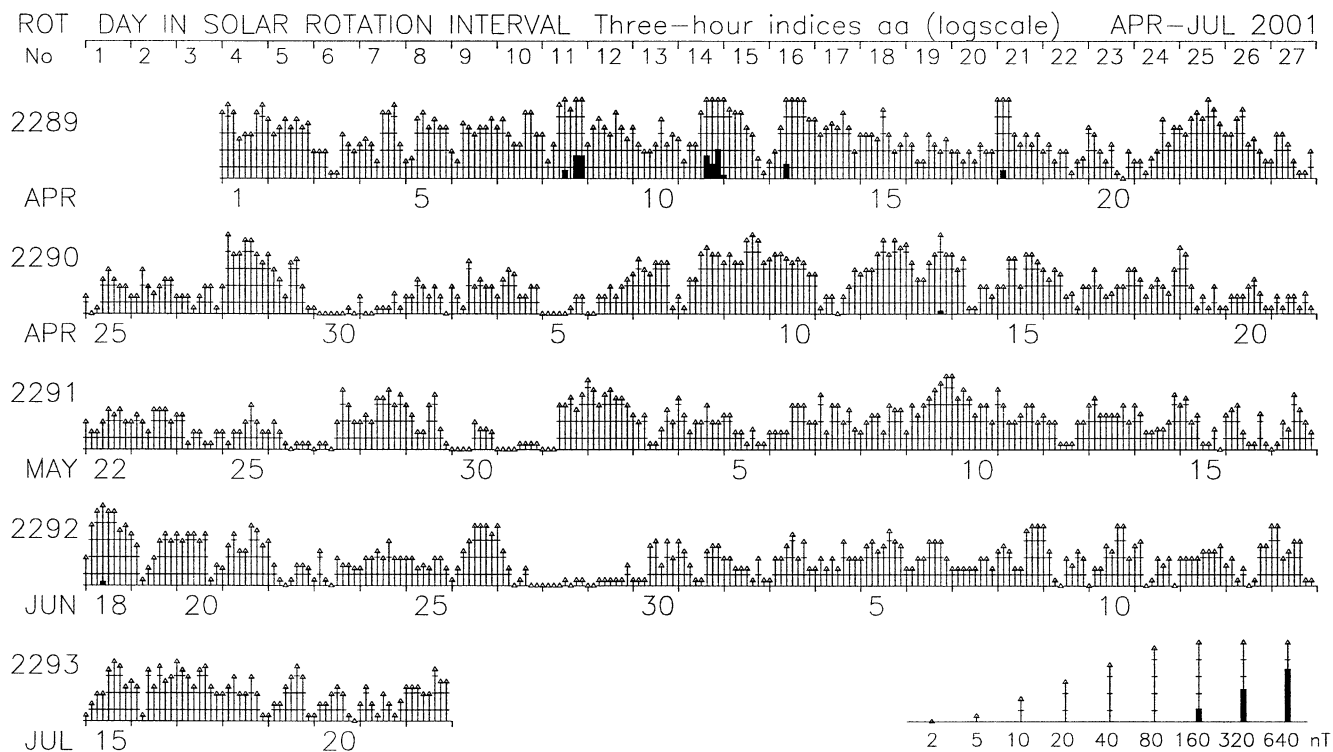
PLANETARY GEOMAGNETIC ACTIVITY

3-HOUR-RANGE INDICES K_m AND a_a BY 27-DAY SOLAR ROTATION INTERVAL

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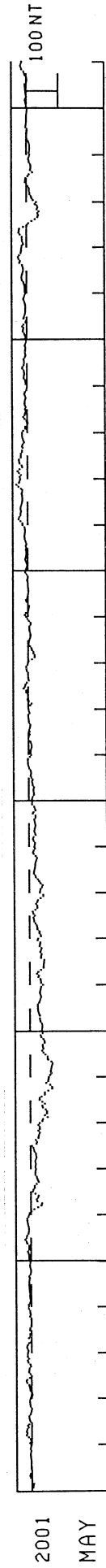


Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

HOURLY EQUATORIAL DST VALUES (PROVISIONAL)

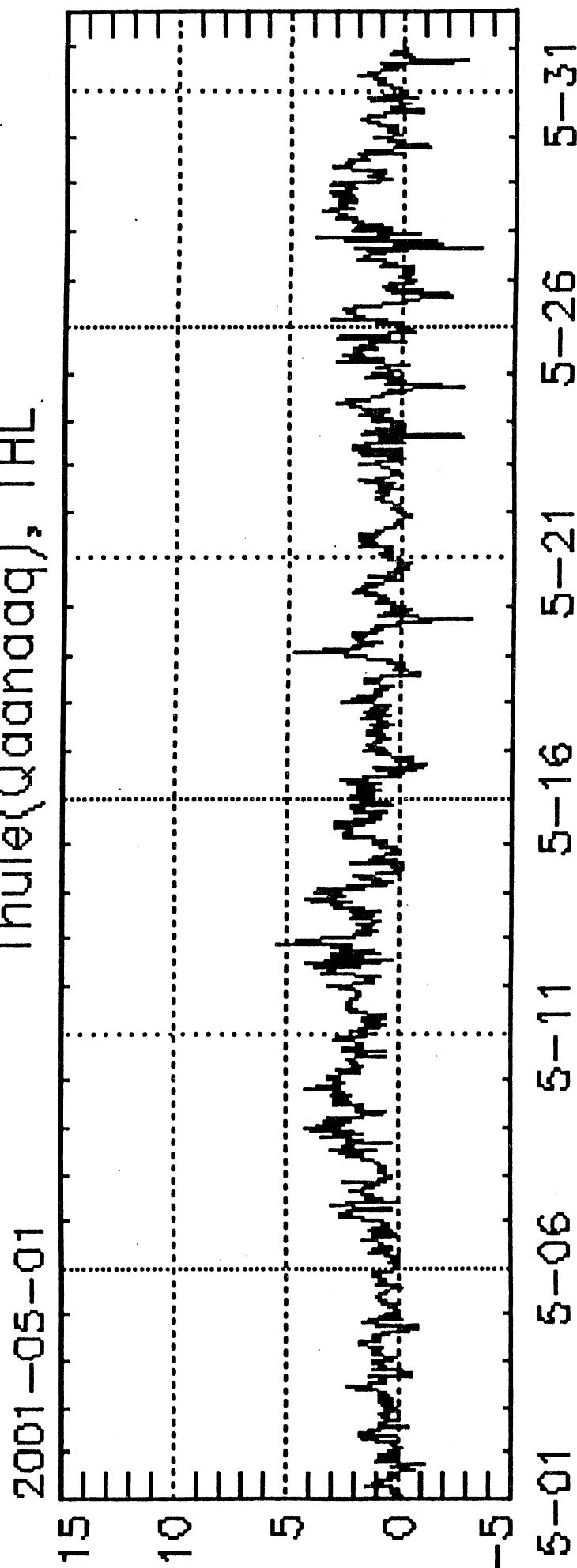
MAY 2001

DAY	UNIT=NT		MAY 2001																								U.T.				
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23	27	23	29	33	26	17	21	26	28	28	23	22	22	18	17	15	17	16	12	14	16	17	18	18	18	18	18	18	18	18	18
24	13	8	7	0	-1	3	9	13	10	8	6	7	6	7	8	10	7	5	8	9	7	3	0	0	0	0	0	0	0	0	0
25	6	6	8	11	11	10	10	12	15	16	12	10	10	11	8	5	8	7	6	6	8	5	4	4	4	4	4	4	4	4	4
26	6	8	10	13	14	12	15	12	6	4	11	10	7	5	5	6	6	6	7	9	11	10	7	7	7	7	7	7	7	7	7
27	8	7	7	8	10	12	15	17	18	16	13	11	11	14	15	25	22	27	28	25	21	18	19	19	19	19	19	19	19	19	19
28	16	12	13	16	15	16	23	27	27	24	12	-1	-6	-16	-27	-36	-38	-36	-39	-33	-34	-33	-27	-27	-27	-27	-27	-27	-27	-27	-27
29	-20	-16	-13	-10	-10	-8	-7	-3	1	6	6	4	-3	-8	-18	-12	-14	-13	-11	-8	-7	-6	-8	-8	-8	-8	-8	-8	-8	-8	-8
30	-8	-10	-10	-9	-9	-7	-5	-2	0	0	-1	-2	-1	4	3	1	1	2	2	2	1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2
31	0	3	4	5	4	2	3	4	4	6	6	6	2	-1	-1	0	6	8	10	16	18	20	17	17	17	17	17	17	17	17	17



Note: The baselines for the observatories were adjusted for secular change for the Provisional Dst values for May 2001.

WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Thule(Qaanaaq), THL



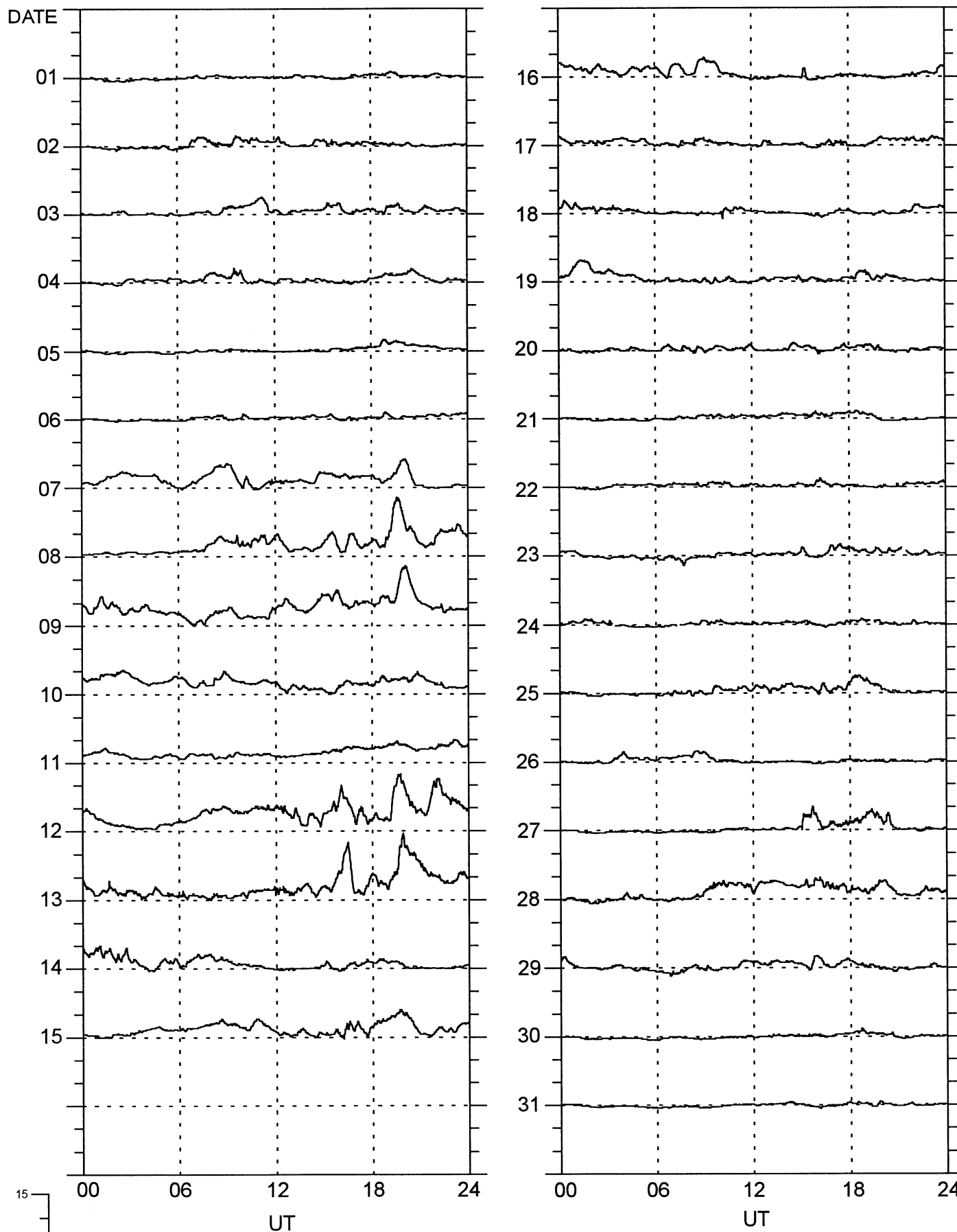
Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

PC-INDEX

165
May 01

Vostok

May, 2001



166
May 01

PRINCIPAL MAGNETIC STORMS

MAY 2001

Sta	Geomag Lat	Commencement Time			SC Amplitudes			Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges			End Hour	
		Day	(UT)	Type	D (Min)	H (Gamma)	Z (Gamma)		D K (Min)	H (Gamma)	Z (Gamma)	Day	(UT)
KRC	16.4N	08	1815	..	..	..	..	09(4,5,6,7)	5	7	89	56	10 09
UJJ	13.6N	08	0700	..	..	..	..		-	8	83	38	09 23
NGP	11.3N	08	0700	..	..	..	..		-	4	56	38	09 23
ABG	09.4N	08	0700	..	..	..	..	09(1,5,6,7)	5	9	103	51	09 23
HYB	07.6N	08	0700	..	..	..	..	09(6,7)	5	8	112	32	09 23
PND	02.0N	08	0700	..	..	..	..		-	7	124	166	09 23
TIR	00.6S	08	0700	..	..	..	..		-	--	193	66	09 23
ETT	00.7S	08	0700	..	..	..	..		-	--	181	57	10 23
HER	33.6S	08	09--	..	..	..	..	09(1)	5	35	99	87	10 08
HYB	07.6N	11	2000	..	..	..	..	12(7)	5	7	123	55	14 10
ETT	00.7S	11	2100	..	..	..	..		-	--	200	61	14 20
KRC	16.4N	12	0014	..	..	..	..	12(7)	5	6	111	40	13 08
UJJ	13.6N	12	1000	..	..	..	..		-	5	94	38	13 22
NGP	11.3N	12	1000	..	..	..	..		-	5	119	35	13 22
ABG	09.4N	12	1000	..	..	..	..	12(4,7) 13(1,6,8)	4	6	108	52	13 22
PND	02.0N	12	1000	..	..	..	..		-	5	142	169	13 22
TIR	00.6S	12	1000	..	..	..	..		-	7	238	74	13 22
HER	33.6S	12	09--	..	..	..	..	12(8) 13(7,8)	5	26	96	85	14 08
UJJ	13.6N	27	1400	..	..	..	..		-	6	123	30	28 20
NGP	11.3N	27	1400	..	..	..	..		-	6	154	27	28 20
ABG	09.4N	27	1400	..	..	..	..	27(5,6) 28(4,6,8)	4	7	142	38	28 20
HYB	07.6N	27	1500	SC	- 0.3	23	- 2	28(4,5,6)	4	7	145	21	29 22
PND	02.0N	27	1400	..	..	..	..		-	6	134	146	28 20
TIR	00.6S	27	1400	..	..	..	..		-	5	144	56	28 20
ETT	00.7S	27	1458	SC	0	20	18		-	--	154	45	29 21

Stations:

ABG = ALIBAG
AMS = MARTIN DE VIVIES
ANN = ANNAMALAINAGAR
BJI = BEIJING
CAN = CANBERRA
CMO = COLLEGE

CZT = PORT ALFRED
DRV = DUMONT D'URVILLE
ETT = ETAIYAPURAM
GNA = GNANGARA
GUA = GUAM
HER = HERMANUS

HON = HONOLULU
HYB = HYDERABAD
JAI = JAIPUR
KRC = KARACHI
NGP = NAGPUR
PAF = PORT AUX FRANCAIS

PMG = PORT MORESBY
PND = PONDICHERRY
SHL = SHILLONG
SIT = SITKA
TIR = TIRUNELVELI
UJJ = UJJAIN

MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS)

MAY 2001

Storm Sudden Commencements (SSC)					Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*			Day	Begin-End	Station(s)
27	1459	A:	VAL*	CLF* HRB NAG* SPT* GUI GNA CNB	06	0643-0655	NAG
		B:	NGK*	BDV* EBR*	18	1346-1358	GUI (si: HRB)
		C:	GCK		20	0602-0610	MMB+ KAK+ KNY+

REPORTING OBSERVATORIES (up to the 2nd of July 2001):

NUR NGK VAL BDV CLF HRB NAG GCK MMB EBR SPT KAK KNY GUI GNA HER CNB

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The * means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).

Storm Sudden Commencements (SSC) and Sunspot Numbers (SSN)

